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Master's Thesis of Public Policy

Self-Perceived Employability's Effect On Korean Youths' Valuation Of Time

- How self-perceived employability impacts
the time spent as a conscripted soldier in the
Republic of Korea Army -

고용가능성이 대한민국 청년의 시간의 가치에
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Abstract

Self-perceived employability's effect on Korean youth's valuation of time

How self-perceived employability impacts the time spent as a conscripted soldier in the Korean Army.

The issue of employment is of great concern to the youths of Republic of Korea. To such a degree that they postpone graduation from university to buy time for employment preparation. This relationship between perceived employability and time. However, due to the special circumstances of Korea being a country still technically at war with its neighboring nation, an added pressure of having to go into conscripted service is placed upon not only the idea of time, but also employability. Thus, this paper attempts to understand, whether there actually exists a relationship between employability and time, how the army factor impacts one's perceived employability; and finally how progressing through the ranks within the army impacts a soldier's valuation of time. The army factor is made more important considering that the ROK Army itself has been leveraging employability as a tool to transform its image.

In understanding the composition of perceived employability, 6 subcomponents were identified – 'perception of the army', 'skills attained from the army', 'state of the job market', 'self-belief', 'ambition' and 'commitment to the army.' These subcomponents were found via various literature review, with the army elements adapted, as to account for the unique nature of the army. A regression analysis was conducted to see how each of the subcomponents impacted perceived employability. Moreover, valuation of time was measured using a willingness to accept survey, and a subjective discount rate survey. The willingness to accept survey asked the respondents who much extra wage they would have to be offered in order for them to extend their service by 6 months, with all other factors associated with their army service staying constant (no promotion, change in station etc). The subjective discount rate, on the other hand, asked the respondents how much extra

they hoped to receive, if a receipt of payment of a specified amount had to be delayed by 1 week, 3 months or a year. A series of multiple regression analyses between employability, rank (time left until discharge), and the control variables upon the independent variables of the willingness to accept amount and the subjective discount rate were conducted to examine the relationships.

This study focused only on those who were conscripted. Thus, the study was aimed at enlisted soldiers and short-term conscripted officers. The survey was approved by the Army headquarters to be distributed beginning April 25th, and was collected on May 5th. Of all the survey data, only 253 were usable. Of the 252, 188 were enlisted soldiers and the rest were responses from conscripted short-term officers.

The results showed that the mean perceived employability for enlisted soldiers were 3.26, whilst the mean for short-term conscripted officers it was 3.40. For the enlisted, in terms of the composition of employability, the subcomponent of employability that exhibited statistical significance with perceive employability were 'perception of the job market', 'commitment to the army' and 'ambition.' Moreover, perceived employability and rank both had statistically significant effect upon the valuation of time, although only via the willingness to accept measures. No statistical significance were found between the two independent variables and the subjective discount rates. The relationship between perceived employability and rank, accounting for the control variables, were as follows; the coefficient of the employability variable was 27.4 ($p < 0.05$), while the coefficient for rank was 44.17 ($p < 0.05$).

The results for short-term conscription officers differed quite significantly to that of the enlisted soldiers. The sub-components of employability with statistical significance to perceived employability were 'self-belief' only. Moreover, there were no statistically significant relationship between perceived employability and the willingness to accept amount, although perceived employability showed a statistically significant relationship with the subjective discount rates. Unlike the enlisted soldiers, there were no statistically significant relationship between the subjective discount rates and neither of the variables 'time left until discharge' nor perceived employability'.

The conclusion drawn from this study is as follows. Enlisted soldiers' perceived employability are positively affected by how they perceived the current state of the job market, their personal ambitions and their commitment to the Army values. A positive relationship between perceived employability and the willingness to accept implies that soldiers who perceive themselves to be more employable, value their time more, which can be attributed to their sensitivity to opportunity cost. Moreover, the positive relationship between rank and willingness to accept, could be due the effect of impending change. For short-term conscripted officers, only 'self-belief' had a statistically significant relationship with employability, suggesting that the 3 years of army experience seems to have little to no effect on how they view their employability stock. Moreover, the positive relationship between perceived employability and the subjective discount rate, echo the effects employability had on the valuation of time for the enlisted; those who were more employable, were more aware of the opportunity cost of time, hence valued their present more than the future.

For the study's impact upon policy, the ROK Army's 'Youth Dream, Army Dream' program was inspected. This program aims to reinvent the image of the Army and conscripted service, from 'time wasted' to 'opportunity to strengthen one's employability stock.' As per the goal that it hopes to attain, and based on the results of this research, the policy itself looks promising. As the program simultaneously attempts to increase the perceived employability of an enlisted soldier, and thus increase the perceived value of a soldier's time spent in the army, it somewhat coincides with the results of the study. However, the conclusion drawn from the results of the short-term conscripted officers revealed that there exists minimal contact between the experiences of the army and perceived employability. Practically no programs nor policies targeting short-term conscription officers' employability stock exists. Thus, lack of a relationship between the army experience and employability should be seen as a problem, especially in light of the fact that application rates for short-term conscription officers continue to plummet, whilst their importance within the army remains ever constant.

Keyword : Value of Time, Perceived Employability, Conscription, Army
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Chapter 1. Introduction

1.1. Study Background

A phenomenon exists in Korea where more and more students hold off on graduating from university for no other reason than to buy some buffer time before graduation. Why? Because, the competition for good jobs are fierce, and the opportunities are sparse. Finding worthy employment is of such great feat in Korea that the efforts trickle down even below the university level, with high school students competing to get into top universities, mainly as they believe that graduating from a good university is the first step towards becoming *employable*.

However, simply graduating from a good university is no longer enough; a degree from a prominent university, although still important, it is nothing more than the first word of the first chapter of a student's employment saga. What comes next, is a sleuth of qualifications, prior work experience and industry specific internships to be in contention for the employment-at-top-firm competition.

With employability being such a sensitive issue for Korea's youths, students who reach the boundaries of graduation and employment begin to truly feel the pressures of finding a job, and thus conceive that point of graduation as an inflexion point that forces many students to reassess how they will value, and consequently utilize their future. As a result, students near graduation, exhibit behavior that is common in Korea but quite seldom found elsewhere around the world - deferring graduation, even when graduation criteria have been met. Students in Korea strategically postpone graduation as an attempt to use the perceived *extra* time to beef-up their resumes via internships, skills certifications, language exchange and so forth. Thus, as students edge closer to the point of graduation, the natural starting line for employment seeking, students who feel ill prepared decide to push back their point of graduation and use the extra buffer time to make themselves more employable.

In addition to employment preparation, an increasingly sensitive matter to half of Korea's youths is the fulfilment of compulsory military service. With conscription written into Korea's constitution, Korean males aged between 19 and 35 are legally

obligated to fulfil their duty and spend at minimum, 18 months in the military¹. For almost all Korean male youths, the most common shared experience is military service. As conscription only binds the enlisted soldiers to a preset service period, the vast majority of the soldiers in uniform, they will eventually leave behind their combat fatigues to don the suits suitable for the workplace. As such, the army experience as nothing more than a hazardous detour from the freeway linking academia and employment. Thus employability preparation has as much of an effect to soldiers as it does to students. However, while students often perceive university as an institution of higher education and career-skills acquisition, the training and skillsets the soldiers acquire while being part of the armed forces are not necessarily seen as transferrable to the workplace. In addition, unlike university students who can defer graduation to acquire the necessary qualifications that can help better position oneself in the job market, an extended length in the military does not necessarily give soldiers better opportunities to prepare for employment. Thus the experience and time spent in uniform, when seen through the lens of opportunity cost, can be considered to be extremely costly.

The matter is further exacerbated as it can be expected that soldiers who are closer to being discharged, and thus have had spent longer in the army, acquired more army-specific skills, naturally experience greater atrophy to their employment-oriented skill sets. As such, veteran sol would have a higher value of time than soldiers who have more recently been recruited, for added pressures of employment amounts with each step towards the employment frontier. This assumption is expected to hold true for both enlisted soldiers as well as for short-term conscription officers who are serving temporarily as an alternative to serving as an enlisted soldier.

The Republic of Korea Army has been cognizant of the pressures young male students feel with regards to attaining employment, and is also well aware that military service have been seen as a source that compounds these stresses. Since for most soldiers, military service is something that has been forced upon them by law, the general consensus of the perception of service has naturally been negative. Men who have already been through the process of compulsory service usually highlight

¹ Starting from 2020, the minimum service period was reduced to 18 months.

the fact that military service often separates one from society, interrupts academia and learning, offers no future benefits for one's sacrifice, temporal or physical, and concludes that their experience was simply a waste of time. This snowball effect of discharged, reserve soldiers proclaiming the army experience to be mainly negative has led to a continuous decline in the reputation of the Army as an organization, consequently feeding into reductions in confidence from the public. As such, as part of the modernization efforts undertaken by the Ministry of National Defense, the Army has been trying to reinvent itself, not as detour through the rough terrains that interrupts learning and progress, but rather a well paved road that helps its members enter into the realm of employability. However, whether increasing employability would in fact make experiences within the army more worth while is questionable. Furthermore, whether the abilities and skill sets learned from the army can in fact positively impact the perceived employability stock of its soldiers is also open to question.

This paper will attempt to define the effects perceived employability has on how enlisted soldiers and short-term conscription officers value their time. To analyze the relationship between self-perceived employability and time, the first course of action will be to ascertain the level of self-employability felt by both officers and enlisted soldiers, and discover what the determining factors behind their perceived employability are, especially in relation to how the army experience fits in. After employability has been determined, whether employability actually does impact a soldier's valuation of time will be studied. The value of perceived time will be estimated through two methods. The first is via a Willingness to Accept survey, to see what amount of extra wage would be considered fair for additional time spent in uniform, whilst all other factors (rank, mission, base) stays constant. The WTA survey will mainly be used to determine the self-perceived worth of the respondent's time in uniform when all conditions are exactly the same as they are right now. The second analysis will utilize subjective time discounting to ascertain the respondents' time preferences. This analysis is used to determine how much more the present is worth to the individual than the future. Finally, this paper will analyze whether the progression through the ranks towards the point of discharge, much like that of graduation, also impacts a soldiers valuation of time.

1.2. Purpose and Scope of Research

1.2.1. Conscription: Enlisted Soldiers and Defense Reform

The Republic of Korea is unique as it is one of a handful of countries that share a boarder with a nation with which conflict continues. With the Korean War ending in an armistice, over the past 67 years, the Republic of Korea (ROK) and the Democratic Peoples Republic of Korea (DPRK) have held an uneasy, tumultuous, and sometimes outright tenuous truce. As such, the ROK under the 39th article of the constitution, implemented a system of compulsory military service for every male between the age of 19 and 35 and a system of voluntary military service system for Non-commissioned Officers, or Commissioned Officers. It is important to note the differences between compulsory military service and its alternative, voluntary military service. Compulsory military service refers to military service that is forced upon the citizens of a nation via legal obligation. Within the realm of compulsory military service, it can further be branched into conscription and mobilization. Conscription requires everyone who falls under the criteria of being eligible to serve, to go through military training, serve in active duty, for a pre-determined period of time. After being discharged, active duty soldiers are transitioned into the reserves, eligible for yearly training and call-up in times of contingency. Mobilization systems differ in that, in times of peace, all eligible personnel continue to live their everyday lives, only expected to partake in military training for a specific period every year in a status of being placed on stand-by, until a national contingency situation arises, and they transition into an active duty role (See Table 1-1).

The general structure of the Korean military service is conscription. While the status quo for enlistment is the Army, youths hoping to enlist in the Navy, Marine Corps, Airforce, specific skills-based soldiers (e.g. translation), medics are able to separately volunteer and apply. In addition, within the Army, perspective enlisted soldiers are able to apply to the Korea Augmentation to the United States (KATUSA) and go through a strict selection process before they are chosen to partake in training. In addition, Korean youths are also eligible to fulfil their military obligations by applying to serve as an officer. This process can either begin by applying to become a cadet in the Korea Military Academy, Naval Military, and Air Force Academy, the military's university equivalent institutions, during a high school student's senior

year of college, or join the Reserves Officers' Training Corps during University. In addition, for students who decide to fulfil their military obligations post their university studies, there are systems such as the Officer Candidate School which allows holders of a bachelors degree to apply to become an officer through a selective examination and basic training process.

<Table 1 - 1> The Different Types of Military Systems

Type	Specified		Main Differences
Compulsory Military Service System	Conscription	Universal Military Service	Everyone eligible for military service serves in active duty.
		Selective Service Draft	Only a select eligible few serve in active duty
		Universal National Service	All eligible personnel either serve in the military or community service
	Mobilization	Conscription Militia	Everyone eligible for military service go through training, return to their normal work, and are called up in times of contingency
		Conscription Call-Up	All eligible personnel serve in active duty for a short period, and then go through additional training via unit mobilization system
		Universal Military Training	All eligible military service personnel go through short-period military training, then are placed on stand-by until called up sequentially in times of contingency
Voluntary Military Service System	Volunteer Military		All military manpower derives from volunteers who enter into a contract with the nation to serve as active duty for a select period of time
	Volunteer Militia		Man power derives from volunteers, based on the ideals of protecting freedom
	Mercenary System		Soldiers who enter into contracts for money and a extended period of time to take on the role of military service. Foreign personnel are also eligible to join
	Occupational Soldiers		People who choose the military as a career, and the nation pays soldiers a livable wage

Under the current structure, enlisted soldiers serve for a period of 18 months. Since 2017, the Ministry of Defense have taken steps to reduce the service period from the original 21 months to 18 months..

In addition to the reduction of military service period, enlisted soldiers have also seeing a steady increase in their monthly wages. Enlisted soldiers begin their service as a recruit, going through 5 weeks of basic training. They are then promoted to the rank of private, whence they spend 2 months before being promoted to Private First Class (PFC). It takes 6 months from PFC to Corporal, and another 6 months to be promoted to Sergeant. Finally, an enlisted soldier spends the final 4 months of their service as a Sergeant.² Apart from a increase in status with each promotion,

² Calculated using the time frame of a soldier serving for 18 months

there is also a 10% increase in wage. The general wages of enlisted soldiers have seen a continued growth of between 10~20% until 2017. However, as soldiers' wages still stood at a fraction of national minimum wage, calls from both within the enlisted ranks and from society as a whole to increase the monthly wages of the soldiers grew louder. Heeding the noise, in 2018, the monthly wage for an average sergeant jumped by 88%, compared to the previous year, and in 2020, it is slated to increase again by approximately 33%. According to the 2018 Defense White Paper, Sergeant's monthly wage is scheduled to increase again to ₩676,115, an additional 25% increase.

<Table 1-2> Monthly Wages of the Enlisted Rank, from 2016-2020 (Unit: KRW)

	Rank	2016	2017	2018	2020
Monthly Wage per Rank	Private	₩ 148,800.00	₩ 163,000.00	₩ 306,130.00	₩ 408,100.00
	PFC	₩ 161,400.00	₩ 176,400.00	₩ 331,296.00	₩ 441,700.00
	Corporal	₩ 178,000.00	₩ 195,000.00	₩ 366,229.00	₩ 488,200.00
	Sergeant	₩ 197,000.00	₩ 216,000.00	₩ 405,669.00	₩ 540,900.00

Recreated using information provided by the Ministry of Personnel Management

The Ministry of Defense attributed the decision to curtail mandatory service period from 21 months to 18 months, and the increase in soldiers' pay to the grand scheme of Defense Reform. Defense Reform 2.0, the current Moon government's plans for large scale reform of the armed forces, called for the need for change in the way the military is organized and operated, due to the mounting constraints provided by grand changes in the military-defense environment and also the national/societal environment. In a national sense, the Republic of Korea is looking at a fertility rate (births per women) of 1.1%³, and according the Ministry of Interior and Safety, the main source of man power for the army – male in their 20s – numbered at around 350,000 thousand in 2017, but the trend implies a drop to 260,000 by 2022 and a further drop to 230,000 by 2025. At the same time, the zeitgeist requires of the army greater sensitivity to human rights and welfare for the enlisted soldiers. As a method of off-setting the decline in personnel and the consequent potential reduction in defensive posture, the armed forces are looking into ways to leverage new state of the art, 4th industrial revolution technology while at the same time shifting its

³ World bank data from 2017:

<https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=KR>

organizational structure to disband and integrate non-essential units.

The organizational impact of the Defense Reform goes beyond that of changes of units, as it also integrates programs to increase the welfare and quality of life of soldiers. Previously, soldiers' access to the outside world were either through a select number of internet-connected computers that are placed within the barracks, and are shared between everyone living within the barracks and through the use of individuals' official leaves (vacation time), used to venture outside their unit base. However, starting from 2018, policy that allows the use of individuals' mobile phones were implemented, and relatively greater autonomy for soldiers to venture outside their base during off-hours were instituted.⁴

Even though the army is clearly transforming to increase the quality of life, quality of service for its enlisted personnel through greater autonomy over the use of their free time and even reduction of military service period, the general consensus of military service as duty is that should be avoided if possible still persists within the enlisted ranks. Such negative perception of the army between the enlisted is cancerous for the organization's image as a whole, for the public image of the army is mainly driven by those who have served, and have left service. The public reputation of the army plays an integral role in, not only the relationship between the army and the Korean citizens, as heavily impacts the credibility and trust people hold towards the army, but it also casts a negative shadow upon all individuals serving in the organization as well. As such, implanting the perception that time and experience spent in uniform is valuable matters. Since majority of soldiers will not continue with the army as their life-long career, almost every soldier will, at least at one stage, go through an employment process. Hence, if the army experience is able to positively impact the employability of its constituents, and thus, make their time in the army feel more valuable in the later stages of life, then not only will it increase perception of the army, but also strengthen its role as a training institution as well.

⁴ Restrictions such as only being able to travel to specific region close to the base, only being able to venture outside during non-operational hours and having to detail the plans of their visits outside, still apply

1.2.2 Military Conscription: Short-Term Conscription Officers

The issue of value of time spent in the military is as important for commissioned officers as it is for enlisted soldiers. There mainly exists five different ways a Korean civilian is able to be commissioned as an officer of the Army – graduation from the Korea Military Academy (KMA), Korea Army Academy at Yeongcheon (KAAY), graduation from the Army ROTC program, commissioning via the Army Officer Candidate School and through becoming a Professional Officer⁵. The average perspective officer cadet is commissioned as a 2nd Lieutenant, a rank that is held for 1 year, until promoted to 2nd Lieutenant.⁶ Of the officers commissioned through these programs, only a minority cohort of officers actually choose being an army officer as their ultimate career path, thus, officers within themselves can be separated into two groups – short-term officers and long-term officers. Long-term officers are, as their name suggests, officers who see military service not as a legal duty but as their career goal. On the other hand, short-term officers are officers, who, although serve in a voluntary capacity, only serve the minimum required service time of a conscripted officer, as a substitution to being an enlisted soldier. For the remainder of this paper, short-term officers will be denoted as conscription officers, for it is more intuitive to understand their position and capacity in such a way.

The issue of future employability and its impact on how time is valued is of great importance, for conscription officers as it is intrinsically tied to their motivation to serve. The vast majority of conscription officers earn a commission through the ROTC program and via applying to the Army Officer Candidate School (KAOCS). Every year, close to 9000 officer cadets are commissioned as second lieutenants via these two programs. But less than half actually decide to extend their commission and become long-term career officers. This low retention rate is made further troublesome by the continuing decline in the rate of application to the ROTC and

⁵ Professional Officers are candidates who have specific civilian qualifications and accreditations that are accepted and deemed necessary for the Armed Forces. Among the expertise accepted as Professional Officers are accounting, nursing, music, pharmacy, law, medicine and interpretation/translation.

⁶ There are professional officers whose civilian professional experiences are taken into account, and thus become commissioned straight into either 1st Lieutenant, or even Captain.

KAOCS programs. The importance of non-career officers can be highlighted by a few facts: ROTC and OCS officers make up the bulk of all field grade officers⁷, a great majority of current platoon leaders are part of this distinction, and 70% of the 155-mile fence that extends through the Military Demarcation Line is under the purview of conscription officers. Hence, it is paramount that there is a sufficient supply of potential candidates, who continuously choose to spend up to three years of their youth as a commissioned army officer.

The reason for the steep decline into these two programs can be attributed to the high level of sacrifice required of the candidates. KAOCS and ROTC officers serve mainly as a substitution for serving as an enlisted soldier, yet the level of commitment and personal sacrifice differs considerably. For instance, purely from a service period perspective, ROTC officers serve for 28 months, in addition to their training and education during their school years. OCS officers serve for 36 months in addition to a grueling 16-week basic military training period. For ROTC officers, their ‘college experience’ becomes somewhat marred by military training as they go through 80 hours of basic military training, 160 hours of summer training in the junior year, 80 hours of winter training in junior year, and an additional 160 hours of summer training in their senior year. There are also an additional 20 hours of character education seminars/retreats, 50 hours of historical and military site visitations. In addition, to become an OCS officer, not only does one need to complete their bachelor’s degree, but they must also pass an entrance examination, which too requires a certain time period to prepare for. Thus the time commitment to serving in the army as an officer can be considered to be excessive, especially in light of the recent substantial reduction of enlisted soldiers’ service period. In addition, with Defense Reform 2.0, there are greater advantages to serving as an enlisted soldier, with no added incentives to officers. Thus, more and more potential officer candidates are choosing to fulfil their military duties as an enlisted soldier. This is especially true for potential candidates of the Officer Candidate School, whom now must choose between serving as an enlisted soldier for 18 months, or serving as an officer for a service period twice as long. Moreover, even preparing for

⁷ Field-grade officers are 2nd Lieutenants, Lieutenants and Captains (O-1, O-2 and O-3 respectively)

ROTC and OCS enlistment eat away at time that most other typical students use to further strengthen their employment qualification accreditation, which are considered fundamental and necessary for employment. To make matters more difficult, potential candidates for conscripted officers also have choices of services other than the army, namely, service in the conscripted police and fire service, Marine Corps, and Korean Augmentation to the United States Army, all of which serve for a lesser period than conscripted officers.

Table <1-3> Breakdown of the Competitiveness of Conscripted Services

Type	Conscripted Police	Marine Corp	KATUSA	Conscripted Firefighters	Army	
					Enlisted	Conscripted Officers
Competitiveness	40 : 1	9 : 1	6 : 1	5 : 1	2.4 : 1	ROTC) 2.7 : 1 OCS) 2.4 : 1
Months of Service	21	21	21	23	21	ROTC) 28 OCS) 36

Recreated from data provided by the Ministry of Military Manpower, Online, 2017

The reduction of enlisted soldier's service time on the application rate of short-term conscription officers have been documented. In the 2008~2010 period when enlisted soldiers' service period reduced from 24 to 21 months, ROTC and OCS saw a reduction in their application rate of 15~25%. Already, both OCS and ROTC officers have seen gradual reductions in their application rates, as seen in the chart below. Furthermore, considering the fact that the enlisted soldiers' mandatory service period have been gradually decreasing for decades, whilst, the mandatory service period for officers have remained unchanged since 1963, the unlikelihood of future changes can be expected. As such, the more recent reduction of service period to 18 months is projected to have a negative impact of 35~40% upon the application rate of short-term conscription officers (KAOCS, 2017).

A study conducted internally by the Korea Army Officer Candidate School and Korea Institute for Defense Analysis on university students found that the motivations for applying to become a commissioned officer were, in order of preference, to fulfil conscription duties as an officer, to become a career officer, to increase employability after dischargement and stable economic benefits. For female candidates applying to join the commissioned officer ranks, their increase in employability stock after their service was the majority response. As such, when

current active service conscripted officers were asked for ways the Army could improve attractiveness to potential candidates and increase the service value for active duty members, the responses came listed by preference – measures to increase employability, reduction of service period, higher wages, preferred student loans and monetary incentives (signing bonus) to serve as a conscripted officer. For demotivation for applying to become an army officer, a study conducted by KAOCS found that 48% cited long service period, whereas 13% cited that they did not believe serving as a commissioned officer would help their employment in the future.

Sense of time and employability is so tightly ingrained in being an officer, especially short-term conscripted officers, that the two cannot be ignored. Already, the army have been seeing great declines in the rate of applications towards both the ROTC and OCS programs. Moreover, with vast reductions on enlisted soldiers' service period, in conjunction with their new freedom to use mobile phones, venture outside the bases and a general trend towards improving the quality of service, the merits of serving as an officer can be expected to further dim in the future. As perspective officer candidates, and current short-term conscription officers both mention the potential of having been an officer as a positive factor in their future recruitment process, it behooves the army to pursue ways to increase the perceived employability of its officers, not just as a method of increasing the interest of becoming an officer, but also as a way to strengthen current officers' perception of their value of the army experience.

Chapter 2. Literature Review

2.1 Perceived Employability

2.1.1 Defining and Conceptualizing Employability

The concepts of employability have changed and morphed dependent on the zeitgeist of the era. Due to the amorphous nature of the concept, it have also been utilized in a myriad of different fields, from labor economics (e.g Hasluck, 2001), welfare policy (e.g. Bowen, Desimone & McKay, 1995) to student empowerment, competencies and education (Harvey, 2001; Van Der Heijde & Van der Heijden, 2006), psychology (Coetzee, 2008) and even organizational structure (McQuaid & Lindsay, 2005); and in almost all of such fields, the definition of the term “employability” have differed. Employability in the human capital sense, as popularized by Becker, was the outcome of investment of money, production and time made in the present to an individual at an organizational level to make production more effective in the future. Becker (1994) considered human capital to be an amalgam of intangible assets such as a person’s knowledge, skills, health, physical strength, punctuality, honesty, good habits and other virtues that are highly sought after. Thus, processes that increases such virtues, including but not limited to training, medical care and education are considered to be investments in human capital. These investments accrue to make people more productive, more efficient, and more useful to the employer, hence making them attractive as a employees. However, as investments in human capital defers todays productivity for tomorrows larger gain, investments in human capital are naturally related to direct costs in the form of opportunity cost of the time spent in training and outlays related to providing the training itself. While Becker’s theory looks at investments in human capital through the view point of an institution, the same investments can be looked at through a more personal lens. Investments in one’s own education, certification training, language exchange and other personal human capital all come at a monetary cost as well as a cost in time, and in the form of opportunity cost of the money one could have made if one was to find a job. Hence, employability is inherently and intrinsically linked to the idea of value of time for it boils down to how one decides to balance how much he or she is willing to forgo in terms of current wages and

productivity to, instead, invest in oneself for greater future productivity.

Other scholars, have approached the idea of employability by dividing the multifaceted and rather nebulous concept into binary categorizations. In a macro socio-economic frame, scholars have used the concepts of ‘demand side’ employability, and ‘supply side’ employability. The distinction between ‘demand side’ and ‘supply side’ usually comes down to the former pertaining to factors outside the individual such as the changing environment of the labor market and workplace zeitgeist whilst the latter relates as factors that pertain to the attributes and skills of the individual-self (Evans, Nathan and Simmonds, 1999; Grip et al, 2004). With the rise of global economic competition, governments have acknowledged the “emphasis on skills-based solutions to economic competition and work-based solutions to social deprivation” (Hillage and Pollard, 1998, p.4), thus increasing the importance of the concept of employability in a policy lens.

Others scholars have used concepts of ‘objective employability’ and ‘subjective (self-perceived) employability’, with objective employability usually relating to the success rate of finding employment vis-a-vis their objective measurables such as education level, employment experience, various forms of examination data, and even age (Fugate, 2001; Bridgstock, 2009; Hillage and Pollard, 1998). As objective employability focuses upon objective numerical data, the research usually looks at the employability as the success rate of those searching for employment. However, scholars have raised problems with simply using pragmatic measures, for it places emphasis on the view that employability is an institutional achievement rather than the ability of the individual students to get employment (Harvey, 2001). Hence, in almost complementary effect to the idea of objective employability, scholars have begun viewing employability in an almost exclusively personal sense, giving rise to the term self-perceived employability to account for the purely individual and psychological aspects.

Self-perceived employability, it seems, has as many definitions as there are research papers. Although the words used differ slightly, the fact that employability is pegged to the individual and their own personal views of self-employability is common to all. In its brevity, it has been defined as “the ability to keep the job one has or to get the job one desires” (Rothwell and Arnold, 2007). On the same note,

Van den Broeck et al (2014) defined it as “ability to retain a job or to get another job...and the worker’s perception and available employment opportunities.” In research that further highlight the “self”, employability is defined as “individual’s perception of his or her possibilities of obtaining and maintaining employment (Vanherke et al, 2014). Fugate and Kinicki (2008), coined the term Dispositional Employability, which is defined as a ‘constellation of individual differences that predispose employees to proactively adapt to their work and career environments.’ Fugate and Kinicki adds ‘employability facilitates the identification and realization of career opportunities both within and between organizations. Employability captures individual characteristics that foster adaptive behaviors and positive employment outcomes.’ Bridgstock (2009) gives a student-centered approach to defining self-perceived employability, using a more definition of ‘skills not only required to gain employment, but also progress within work to contribute to the company’s future success.’

<Table 2-1> Different Definitions of Employability	
Authors	Definitions of Employability
Berntson et al. (2006)	The individual's perception of his or her possibility to achieve a new job.
Bridgstock Graduate (2009)	Narrow: skills not only required to gain employment, but also to progress within work and contribute to future success. Broad: self-belief and an ability to secure and retain employment, improve productivity and income-earning prospects, skills requiring continuous learning.
Fugate, Kinicki (2008)	A constellation of individual differences that predispose employees to proactively adapt to their work and career environments. Employability facilitates the identification and realization of job and career opportunities both within and between organizations. Employability captures individual characteristics that foster adaptive behaviors and positive employment outcomes.
Grip et al (2004)	The capacity and willingness of workers to remain attractive for the labor market (supply factors), by reacting to and anticipating changes in tasks and work environment (demand factors), facilitated by the human resource development instruments available to them (institutions)
Hillage & Pollard (1998)	Ability to gain initial employment, maintain employment and obtain new employment. The capability to move self sufficiently within the labour market to realize potential through sustainable employment.
Rothwell and Arnold (2007)	The ability to keep the job one has or to get the job one desires
Van den Broeck et al. (2014)	Employee's ability to retain a job or to get another job. Including worker's perceptions of employment opportunities that are readily available to him or her.
Van der Heijde and Van der Heijden (2006)	At the individual level, the 'continuously fulfilling, acquiring or creating of work through the optimal use of competences (resources that enable firms to reach sustained competitiveness).
Vanhercke et al. (2014)	Individual's perception of his or her possibilities of obtaining and maintaining employment. Perceived possibility to maintain current employment next to obtaining new employment

2.1.2 Building Blocks of Employability

Prior to understanding the scale of employability measurement, it is paramount to understand the composition of employability. As perceived employability refers to “obtaining, and maintaining” employment, this idea is relevant for different groups within the labour market – from students, the employed to the unemployed (Vanhercke et al, 2014). As this paper will focus on students who are currently serving in the military, and officers who are transitioning out into society, the focus will be on students and the newly employed. Hillage and Pollard (1998) constructs graduate employability as a function of important elements- person’s employment assets, deployment, presentation and utilization of employment assets. An individual’s employment assets are comprised of their knowledge, skills and attitudes, which encompasses everything from a person’s personal attributes such as reliability and integrity, to occupational specific skills, generic skills such as communication and problem solving, and even skills that positively impact the organization such as teamwork and self management. Deployment on the other hand, are abilities linked to career management skills such as self-awareness, opportunity awareness, decision making skills and transition skills (e.g. job search skills). Presentation refers to how one presents oneself in the eyes of the employers, via CVs, records of achievements, qualifications and interview techniques. Finally, Hillage and Pollard (1998) underlines the point that what is most important is the ability to actualize the employability assets, which in itself is dependent on personal circumstances (caring responsibilities, ability to seek opportunities) and macro economic demand and patterns of job openings. Hence, they are able to balance both ‘supply’ and ‘demand’ factors of employment in analyzing a student’s employability, even highlighting the interaction between personal circumstances and labour market circumstances. However, the researchers neglects to mention the balance between the different components of employability and their weight upon an individual’s perceived employability. Furthermore, there is little mention of the psychological aspect of employability such as self-confidence, career values and goals.

The psychological aspect of is paramount in the 21st century in terms of employability. The constant change and ever growing dynamism of the world requires of individuals increasing fluidity and adaptability (Fugate et al, 2003), in

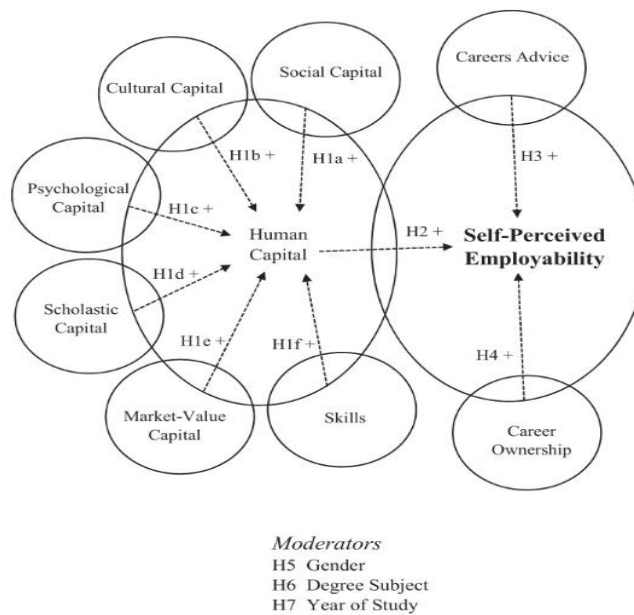
addition to the stock standard knowledge, skills and attributes criteria. As such, Ashford and Taylor (1990) introduces the importance of proactive adaptability in the work domain for the employed looking to maintain their jobs or move to an even better one, arguing that individuals who possess high levels of employability are predicted to reap the benefits of proactive adaptability. Adaptability are the willingness and the ability of individuals to change personal factors, such as Knowledge, skills, abilities and other characteristics (KSAO), dispositions, behaviors, etc. to meet the demands of the ever changing situation as a means to continually positively contribute to organizational performance and consequently their career success. Fugate et al takes this notion a step further by adding elements of career identity as a key driver of employability. Fugate et al (2004), draws the building blocks of the employability as a “synergistic combination of career identity, personal adaptability and social and human capital.” (p18). These three dimensions facilitate the identification and realization of career opportunities within and between organization – a symbiotic relationship which taken in concert with each other generate the concept of employability. Fugate et al define career identity as one’s self-definition in the career context, which is used to describe “who I am” or “who I want to be”, thus acting as a cognitive career compass that actively motivates and challenges an individuals need to adapt, change, and improve. The concept of personal adaptability is expanded from that of Ashford and Taylor to include attitudinal attributes such as optimism, propensity to learn, internal sense of locus, openness, and self-efficacy. While other attributes are rather self-explanatory, importance of sense of locus must be touched upon for it highlights the personal psychological aspect of employability. Internal locus of control is the belief that the individuals themselves can influence the events around them, that they are in control of their career destiny. This locus is the driver, the motivation and the hope that gives courage for adaptability and change in the face of occupational change. Self-efficacy, in addition, is the individual’s perception of their ability to perform across diverse situation, highlighted by their judgement skills and general capabilities to handle challenges. Finally Social and human capital dimension denote interrelated but distinct capital that are often included in the broader conceptualization of KSAOs. Social capital in essence is the value of one’s social networks - the interpersonal

elements of the individual that can be leveraged in the occupational sphere. Network size and network strength have been found to be important characteristics that not only determined an individual's ability to gather information, but also served as an indicator for potential level of influence that the individual holds, for networks confer elements of both solidarity and reciprocity (Fugate et al, 2004).

Self-perceived employability imbeds the psychological concept within its construct, and as such, has been an especially popular topic to conduct research on undergraduates and graduate school students. Where Student-centered employability researches tend to look at employability by in the eyes of the institution (Universities, vocational schools etc) or even the employers, self-perceived employability researches focus more on the students searching for jobs. On top of the affect human capital has on employability, Donald, Baruch and Ashleigh (2019) further adds factors such as careers advice and career ownership (or protean career) as having important impact on how a student perceives self-employability. Within the scope of Human Capital, Donald et al (2019) introduces social capital, which includes a person's network of contacts, friends, family, school affiliations; cultural capital which entails the reputation of the student's university, foreign language skills, exposure to Social Networks Services (a factor especially important in the 21st century as SNS have become a platform to advertise oneself); psychological capital which relate to a student's efficacy, optimism, resilience and adaptability; scholastic capital, which is the self-perceived value of school grades, and one's university degree; market-value capital which includes the experiences gained from partaking in the labor market and finally additional skills, which is listed as teamwork, communication, problem solving, IT skills, literacy, numeracy skills and time management ability. Career Advice is the influence of meso-level stakeholders (i.e. university career services, faculty and advisors) through informing and influencing the career decisions of prospective graduates. Finally, Career Ownership is the transferability of one's knowledge, skills, and abilities in line with the changing work environment to remain employable. The result of this study found that development of human capital was positively linked to self-perceived employability, career advice was also a positive factor of employability although to a lesser degree than human capital and career ownership was thought to be an essential component of

employability.

<Figure 2-1> Conceptual model of self-perceived employability



Source: William E. Donald et al, (2019) The undergraduate self-perception of employability: human capital, careers advice, and career ownership, *Studies in Higher Education*, 44:4, 599-614

In the Korean context, similar variables were used to ascertain positive impact upon employment. Many Korean research focused upon university students, although varying in field of study and location of students, and found that age, sex, educational background, GPA, qualifications, language abilities and additional training and experiences all had positive impacts on a student's employability. All of the above mentioned characteristics fall under the employment asset category popularized by Hillage and Pollard (1998), although the term used in Korea was 'spec', a Koreanization of the work specification. Interestingly enough, most of the literature in Korea regarding employability heavily emphasized the importance of the perception of such measured employability assets, both from an individual standpoint and from the employer standpoint. Psychological and perceived notion of employability was further explored by Shin (2012) and Byun (2014). Shin (2014) found that in addition to the employability assets, other factors such as expectation of employment (or the standard of employment organization one wishes to be a part of), and will to be employed all impacted a student's employability. The research

found that even though student's had great "spec", setting to high of a standard (expectation) for employment negatively impacted their chances to be employed. Interestingly, it was also found that even if a student had lower "spec" than their competitors, high desire to be employed had a positive impact on employment possibility. The logic behind this finding was that, measurable employability indices only got a student past through the first set of employment assessment, the rest of the interview process was more associated with the presentation of the individual in the eyes of the employers. Byun (2014) expanded upon Shin to model Korean student's employability. The three main parts that impacted employability were capacity, expectation and employment desire, all of which impacted each other positively. Individually however, capacity and employment desire were designed to have a positive relationship with employability, whilst expectation supposedly had a negative relationship. On the other hand, Baek (2013) used career goal identification, employment opportunity identification, skills acquisition, and work related experience as the four dimensions of employability for Korean university students.

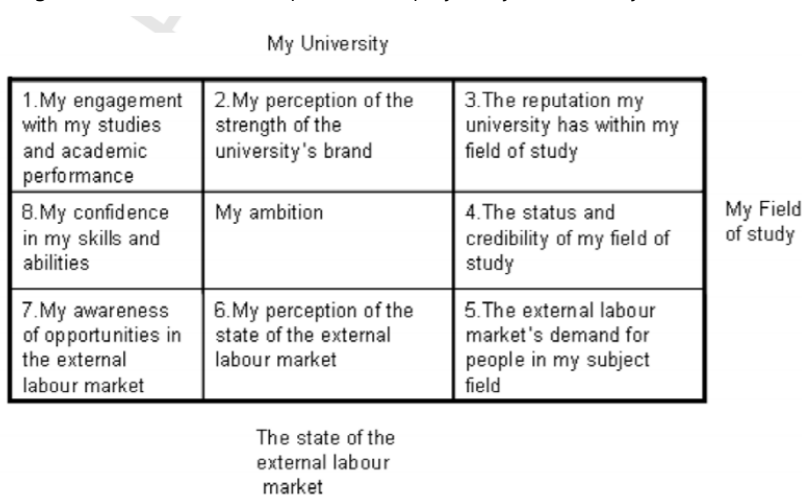
2.1.4. Scales for Perceived employability

Construction and initial validation of a scale for self-perceived employability have been created for university students. Rothwell et al (2008) created a student self-employability matrix as a way to measure overall employability of graduating students. The matrix consists of four major components which are placed into a three by three grid, with each cell in the matrix representing the interaction between two of the four components. The four components are Self-Belief, My University, My Field of Study, the State of the external Labour Market. Self-belief and the external labour market situation classically identifies the dichotomous structure of internal and external influences of employability. Furthermore, as this study was conducted for university students, Rothwell et al includes the student's perception of one's university as a brand, and also one's field of study vis-à-vis its preference in the eyes of the employer. The nine cells of the matrix, listed are ① My engagement with my studies and academic performance, ② My perception of the strength of the university's brand, ③ The reputation my university has within my field of study ④The status and credibility of my field of

study ⑤ The external labour market's demand for people in my subject field ⑥ My perception of the state of the external labour market ⑦ My awareness of opportunities in the external labour market ⑧ My confidence in my skills and abilities ⑨ My ambition. Ambition was added at the centre of the matrix as a reflection of its perceived conceptual proximity to self-belief. A 16 item scale was presented to respondents, and the potential answers were on a five-point Likert style scale. Through a PCA analysis, Rothwell et al was able to confirm the previous literature reviews position that self-perceived employability can be fundamentally broken down into internal and external employability. In addition this study found that the overall scale showed an acceptable internal reliability with self-perceived employability being quite strongly correlated with both ambition and university commitment. However, as this scale specifically targets university students, components such as university and field of study rather limits its use for other demographics.

Rothwell and Arnold (2007) developed the 16 scale 'self-perceived employability' measure for corporate employees in the UK. They created four quadrants – a) self -valuation in current organization, b) perceived value of occupation in current organization, c) self-valuation outside current organization d) perceived value of occupation outside current organization- under the umbrella

<Figure 2-2> Dimensions of perceived employability of university students



Source: Rothwell, A., Herbert, I., & Rothwell, F. (2008). Self-perceived employability: Construction and initial validation of a scale for university students. *Journal of Vocational Behavior*, 73(1), 1-12.

categories of internal vs external labour markets, and personal vs occupational attributes for they believed them to be most pertinent to both job-getting and job-keeping. Thus, quadrant a) represents an individual's self-perceived valuation of their own utility to their employing organization. Quadrant b) reflects the state of the occupation and the organization within the context of the internal labour markets and occupational attributes. Quadrant c) looks into relationship between personal attributes and external labour markets. And finally, Quadrant d) is the relationship between occupational attributes and external labour markets. 16 items were generated to reflect the four quadrants valued on a 5 point Likert scale.

<Figure 2-3> Dimensions of perceived employability



Source: Rothwell, A., & Arnold, J. (2007). Self-perceived employability: development and validation of a scale. *Personnel Review*, 36(1), 23-41.

Hence, Rothwell et al's scale slightly alters Rothwell and Arnold's scale by adjusting 'Internal Labour Markets' to 'My University', and 'Occupational Attributes' to 'My Field of Study' to simply account for the effects of the university as an institution upon the perceived employability of its students.

2.2 Value of Time

Value of time has been used as a key parameter in economics of transportation policy, especially as it is calculated in relation to opportunity cost of time. At the crux of transportation value of time calculation, is the trade off between

money and time – how much extra someone will be willing to pay to reduce travel time by x amount of minutes. Value of travel time have been estimated on mainly on data from hypothetical experiments such as willingness to pay and willingness to accept surveys. Whilst, willingness to pay asks for the additional cost of saved time, willingness to accept asks for how much discount in travel cost one is willing to accept for a longer travel time. With both the Willingness to Accept and Willingness to Pay model, the underlying assumption is that it is possible to infer commuters' tradeoff of travel time and travel cost by their choice of transportation. Hence, in a WTA and WTP scenarios, researchers are able to estimate a denominational amount to time. Thus, in willingness to pay models, automobile commuters are asked how much they are willing to pay to reduce travel time under a variety of travel conditions such as differing toll prices for faster lanes on freeways (Calfee & Winston, 1997), the cost willing to be paid per time saved becomes the denominational value of time. However, a caveat of these models is that value to time spent on the road is highly dependent on a variety of other factors, mainly by mode of travel, purpose of trip, whether there are passengers and even trip destination. These caveats are made important due to the fact that it gives insight into what exactly the respondents are trading off. For instance, time spent on a bus was perceived as less desirable than the same time spent in a train, for better use of time can be spent on a train.

Moreover, in a study conducted by Calfee and Winston (1998), they also found that commuters' willingness to pay was positively impacted by the level of individual income- those who earned more, valued their time more, hence were willing to pay more for a quicker commute. Moreover, the cost of gas also had a negative effect on the speed at which people drove. What Calfee and Winston (1998) was able to hint at was that those who were (economically) worth more, also valued their time more, clearly delineating the clear relationship between opportunity cost and valuation of time.

2.2.1 Effects of uncertainty on Time Preferences

A subjective valuation of time have also been calculated by a process of time discounting. Simply put, subjective time discounting is the rate at which individuals prefer the current value for a future outcome. Although this method does not amount

to a dollar value, one's value of time can be ascertained as how much someone places a preference on *today* as opposed to *tomorrow* or a point in the future. As time valuation is conducted as a difference in preference between now and later, environmental and personal factors weigh heavily upon its valuation. Lahav et al (2011)'s study of the effects military experience upon time preferences highlights that soldiers do indeed have a different time preference than students of comparable age. In Israel, similar to Korea, there is a system of universal conscription where males and females serve in the army for two or three years, respectively. Furthermore, Israel is one of few countries around the world where there are continuous and constant kinetic action that occurs across its borders. Thus, Israeli soldiers face not only mortality risks, but also risks and uncertainties associated with average soldiering, such as uncertainty about daily activities due to the fact that they do not control it (for enlisted men and women), and a shifting schedule due to unforeseen emergencies, in addition to risks of collective punishment if a comrade misbehaves (Lehav et al, 2011). With various uncertainties clouding a soldier's future, the average subjective discount rate was indeed found to be "substantially and significantly higher for soldiers" (p 133, 2011) than for average Israeli students. Soldiers also exhibited a much lower risk aversion behavior than students, further strengthening the belief that uncertainties about the future increases risk acceptance, and thus places a greater premium upon the present.

Athletes, due to their operating environment, have also shown to exhibit higher subjective discount rates, suggesting their preference for the present than the future. Professional athletes operate in a unique environment where there are first, clear winners and losers, and second, there is a imperfect, but still well acknowledged, sense of when a career may end. The highly competitive nature of sports and its physical toll on the athletes gives them a constrained time horizon for how long they can continue to operate at a athlete-level. Thus, there exists a inherent "win-at-all-costs" mentality that sometimes push athletes to only think about the present. (Krumer et al, 2011). The impact of such mentality can be seen in athletes using drugs or other performance enhancing drugs for a short-term gain, even though they are aware that if caught, it can be grounds for expulsion of that athlete from competition, and be forced into retirement. As predicted, Krumer et al (2011) found

that athletes do indeed discount time more heavily than non-athletes, indicating that athletes are less willing to postpone receipt or payment of money than non-athletes. In addition, they also found that level of education, at least for their sample, did not impact the subjective discount rate in any meaningful way, although other research suggests level of education to be a factor in discount rate decision making. Considering both soldiers, and athletes, the effect of uncertainty that shrouds both professions seems to have profound effects upon how one values their time.

2.2.2 Effect of Uncertainty upon Time Pressure

Carsten et al (1999)'s socio-emotional theory suggests that when the "conclusion of the appraisal process is that time is limited, the acquisitive mode associated with unlimited time is transformed into a more-present-oriented state", making it increasingly important to people to start making the "right choice, not to waste time on gradually diminishing future payoffs" (p165) and as such, people start making choices that are in line with emotionally meaningful goals. Carsten (1999) found that when endings are primed, people focused on the present rather than future or even the past, leading to a shift emphasis on the intuitive and the subjective rather than the objective and analytical. This temporal shift can be seen impacting people's decision making, especially in terms of social situations. A study on three different groups, with distinct differences – group 1 and 2 being comprised of wide age samples ranging from adolescents to octogenarians, both sex, blue and white collar workers, African and Caucasian Americans evenly distributed between age groups while group 3 were comprised of males of average 37 years old, who were differentiated by HIV status (HIV-Negative, HIV-Positive but asymptomatic, and HIV-Positive with symptoms). HIV positive patients and older patients, both of whom have a higher sense of time "running out" showed strong preference of spending *remaining* time with familiar social partners, where as younger adults' preferences differed by personal conditions. Study done in Hong Kong during its hand-over to China had similar effects to end of life results where both younger and older adults preferred to spend time during the tumultuous period with familiar social partners as opposed to the novel (Carsten, 1999). Thus, ending of time other than

death, such as geographical moves, political transitions, may instigate the same kinds of changes in social preferences.

In addition, the magnitude of time pressure felt have also been found to have been impacted by economic value of time. DeVoe and Pfeffer (2011) found that participants who were paid more for do carry out a certain activity for a certain period of time than others for the same activity and time, were more acute in their feeling of time pressure. Hence, time pressure was directly linked to the economic value of time. The reason behind this relationship have been posited to a variety of factors. Hamermesh and Lee (2007) found that those who had higher income showed higher perceived time pressure because higher income implied both higher per hour value of time, and consequently an increasing opportunity cost of time. Whilst, Dai et al (2008) attributed it to value heuristic – people believing that if time was personally assigned a high value, they actually start believing it is worth more than it actually is, as if it is akin to high-value commodities that are associated with insufficiency. This implies that when individuals apply a high value of time to their own time, the become more aware of its scarcity, which increases their level of stress and anxiety.

2.3 Employment and Time

2.3.1 Delay of Graduation and its Inference to Time

Literature regarding employment and time in Korea mainly discuss the issue of delaying graduation by Korean university students. Although literature regarding delay of graduation of Korean university students does not directly address the student's value of time vis-à-vis their self-perceived employability, it is still pertinent to this research as they highlight the role of the graduation/employment boundary as a factor in the decision making process of students.

Graduation delay, although is a personal choice, has been having a real impact upon not just the individual but also Korea's society, economy and youth's perception of the job market. Although specific numbers differ dependent on how researchers define delayed graduation, the estimation shows numbers that are quite substantial, with the Ministry of Education estimating the numbers to hover around

17,744 in 2016, more than twice the number of delayed graduates in 2011, which estimated the student numbers at 8,270 (Kim & Moon, 2018). Some researchers have found that for students attending 4-year universities, about half have experienced various methods of delaying graduation, such as simply taking more than necessary amounts of credits, purposefully not attaining the necessary requirements to graduate and taking personal leaves of absences from school (Chae, 2016; Lee et al, 2017). The numbers of delays in graduation continues to grow as more and more students perceive such choices as to be a norm. Such choices, in return, have led to negative impacts for different players. For the universities, with more students delaying graduation, university resources are forced to be divided between a greater number of students, leading to greater cost of maintenance. Furthermore, universities are also forced to hire more full-time professors to match the student-professor ratio, an integral part of the university ranking mechanism. There are also personal costs which act as trade-offs of the decision to delay graduation, mainly associated with greater investment in self. There is the added cost of education, as students are forced to pay for at least an additional semester, there are opportunity cost for the individual lost by not partaking in wage-earning activities. Finally, there is a general cost to the economy and society as a whole. With more and more students delaying graduation, the labour market continues to lose a supply of eligible, and educated workers (Woo, 2016). On this note, Chae (2016) calculated that if students decided to be employed at a mid to small scale companies, as opposed to delaying graduation, the opportunity cost of the students will amount to 2.5 trillion KRW.

However, for many students, the choice to delay graduation is an extremely strategic and often, logical one. Kim, Lee and Lee (2016) outlines the student's choice via the economic approach, which informs us that the decision to delay graduation is based on the logical and a strategic decision by students often in response to the down-turn economy, unemployment rate, and even company recruiting schedules. Dreary labour market conditions have guided students to weather out the storm, per se, within the confines of the university classroom, for in times of economic down turn, not only is employment more difficult, but students tend to take jobs that can be construed as *below* their caliber (Yang, 2015). This has lasting effects, as students point out that starting their first job at a less than *reputable*

position makes it more difficult for them to take a better paying job at a more respectable company further in the future (Cho et al, 2016). As such students, during down turn economies, students weren't so much worried about employment itself, but rather, the *right* employment, their dream job. Thus, students choose to spend the extra semesters to exert efforts that can help them take a step further towards their goal, namely in efforts to strengthen their employability via increasing their GPAs by taking easier classes during their extra semesters, taking English language qualification exams and other career related accreditation examinations (Cho et al).

Again, time after time, students exhibit strategic behaviors where if they believe that their current abilities lack compared to their hopeful job, then they decide to invest their time in order to better prepare themselves for the future. In another words, to increase their employability, students are willing to forgo their stepping over the virtual boundary into the employment space, to opt to instead invest greater time so as to extend the buffer zone between graduation and employment. On the same note, other researchers found that students who delayed graduation had, lower GPAs but better TOEIC exam scores, had more language exchange experiences and placed greater emphasis on the need to strengthen their resumes (Kim et al, 2016; Kim & Moon, 2018). Echoing this view point was Chae (2012) who found that, of the total students who had decided delay graduation, 13.5% was from a four-year university and their decision was mainly driven by their belief in the need to strengthen their resumes, and the ease in which one is able to do so in extra-semester as opposed to regular school semesters.

To summarize, the phenomenon of university students delaying graduations have been researched in close association with employability. Regardless of the factors that lead students to defer graduation, most used the time attained to bolster their *specs*. In addition, again, it is clear that the choice of students to delay graduation is not a post-facto facts based decision, but rather a strategical decision fueled by their personal perception of their own ability, stacked up against their personal perception of the state of the economy, employment market, their dream job, and their competitors. Again, perceived employability plays an integral role in the decision to delay graduation. Although students do not specifically mention how they valued time at the specific point of their decision making, it can be interpreted

that because their perceived lack of confidence in one's own ability to be employed in their objective career led them to delay graduating, and thus moving back the point of employment, they valued their current time higher than their future time, hence extending the activities related to the current.

2.4 Value of Military Service

2.4.1 Perception of Conscription

Conscription comes with unflattering epithets such as “forced”, “choiceless”, “waste of time”, “useless”, “unproductive” and “not worth it.” However, it is an unavoidable part of life living in the Republic of Korea. Thus, literature regarding the army experience generally centers around perception of the Army, service motivation, satisfaction and the army's impact on future life. Thus, very few literature deals explicitly with conscription vis-a-vis employability and value of time, although the concepts are touched upon in aforementioned literature.

Perception of the Army, its reputation on the perspective enlisted soldiers, have generally been negative. University students, awaiting enlistment, usually go through a series of stages, from discomfort of the unknown, being teased by friends, peers and family, inner changes, changes in societal status (from student to soldier), changes in social life and status and finally, worry in adapting to vastly different environmental changes (Jung, 2013). Such emotional rollercoaster leading up to recruitment and basic training is precipitated by the images of the army that is conjured in the minds of youths. A study conducted against university freshmen, yet to enlist in the army, about the image of the army showed that they viewed their time in the army as “lost time”, “a place that people want to avoid but cannot”, “fear”, and “blackhole of anxiety”. A reason for such negativity surrounding the image of the Army for students can be attributed to the fact that student's have difficulty looking for unbiased information regarding the army experience, and instead, usually attain information about enlistment via friends and peers, which are usually experience-based and often either exaggerated or fictional. Moreover, pre-enlistment students also hope for three major achievements from their army experience – to finish their service without any injury, to serve in a comfortable unit and to serve

with a specific objective, whether it be obtaining accreditation, English language qualification exam score or even simply, adapting to the army life without any troubles (Jung & Kim, 2016). However, other research have found that perceptions of the army change as one complete their conscription duty. Cho and Hwang (2018) found that university students who have already finished their military duties considered their military career to have actually been helpful to their social life and found that the army was less strict and rigid. Thus, there clearly does exist a difference in perception and reality of army life.

The motivations and experiences of officers, and the factors associated with both their satisfaction and stresses regarding military life differs considerably from the enlisted soldiers. KIDA found that 57% of perspective officers applying for commission claim it is to carry out their mandatory military duties, yet unlike the enlisted men, who list fears of adapting to an unknown environment, being cut off from society, and wasting time as the greatest factors aggravating their stress, officers level of satisfaction and stress mainly deal with job specific factors. For instance, how adroit an officer considers he or she is in regards to the characteristics of their job, have been found to have significant impact on job satisfaction. Cho and Kim (2017) outlines job characteristics to take on three key strands - the characteristics of the person, characteristics that are specific to the army, and characteristics that are specific to the job. Personal characteristics listed factors such as sex, length of service, marriage, age and level of education; army specific characteristics listed branch, the unit and echelon one belonged to, area of responsibility, commission type and their exact position whilst job characteristics referred to the level of professionalism needed for the job, the authority and responsibility of the position, one's level of fervor towards the job and a sense of accomplishment. Intuitively, research found that female officers who volunteered to serve as an officer showed greater fervor towards their jobs, mainly because their motivation to earn a commission is completely of their own volition. Moreover it was found that younger officers, aged younger than 30, unmarried and having served for less than 2.5 years, felt that in every portion of their job characteristic, they felt lacking and consequently, less-than-satisfied. Considering that these officers are comprised of mainly short-term conscription officers who serve as platoon leaders, and company staffers, thus

have the closest relationships to enlisted soldiers, their pessimistic view of their job is particularly a point of concern (Cho & Kim, 2017). It was also found that, 2-year college degree holders and graduate degree holders responded more positively to their job characteristics factors. Considering more than 90% of officers simply hold a 4-year bachelors degree, it behooves the army to give more opportunities to officers to pursue advanced degrees to boost their confidence vis a vis job characteristics (Cho and Kim, 2017).

2.4.2 Army experience on employability and future wealth

Army experience itself have been considered in a variety of different economic tools- from implicit taxation, aggrandizement of opportunity cost to investment in human capital, albeit it being extremely firm-specific (Becker, 1965; Eom, 2009). In an econometrics centered view, when conscription was approached through an opportunity cost lens, highlighting the cost incurred on the individual due to delays on academia and career management, the increased education necessary to re-sharpen and update necessary skills and knowledge that has either been lost or outdated due to service period, delay in time of marriage, and even in employment, Lee (2003) by 2003 standards estimated that the economic opportunity cost incurred due to conscription amounted to 7.4 trillion won. There have even been researches that showed that military career experience had a veteran's premium in the eyes of an employer, not due to the institution's effect on human capital investment but rather as a method of screening a candidate (Little and Fredland, 1979; Eom, 2009). However, in reality, Teachman and Tedrow (2007) found that, in the US, military experience, whether that be in active duty, the reserves, or retired former members in uniform, led to decrease in income due to career discontinuity incurred by service time, and even the training period accrued in the army had no positive effect upon income.

The effects of military service upon income for enlisted soldiers in the Republic of Korea were different from the conclusions found in the US studies. Eom (2009), utilizing the Korea Labor & Income Panel Survey's longitudinal survey over a 10 year period between 1998 until 2007, and using the Mincerian earnings function for military service, he found that there was indeed a positive relationship between

military service and income. Furthermore, he found that the magnitude of the positive effect of military service, which at the time was 27 months (average), was quite similar to the effect of having worked full time for 24 months. Thus, Eom was able to show that there indeed does exist a veterans premium in the labor market. This position was furthered by Kim (2016), who utilizes the Graduates Occupational Mobility Survey to see the effect of active duty experience, civil service experience, military service exemption and defense industry researchers on the length each took to find employment and their post-service starting salary. The research found that once demographic variables were controlled, there was a statistically significant difference in the length of recruitment between those who have completed their compulsory service as an active-duty soldier, and those who are not subject to active duty. In average, discharged active duty soldiers found their first employment 3 months faster than others. Furthermore, discharged active duty soldiers also had a higher probability of earning a starting salary. When a quantile regression analysis was conducted on the different quantiles of salary, the positive effect of active duty experience was existent in all of the quartiles. Thus, especially in Korea, researchers suggest that there is a positive relationship between active duty and employment.

Chapter 3. Research Methodology

3.1 Research Questions and Hypotheses

The purpose of this research is to examine the effects of self-perceived employability on time valuation for enlisted soldiers and conscripted officers. There are three key components to this. The first objective will be ascertain the individual's perceived stock, or self-employability. Moreover, as this research focuses upon soldiers, given their unique characteristics and service environment, based on literature review, it is paramount to take into account the effect of the army experience on their perceived self-employability. Hence the hypotheses broke down the different subcomponents of perceived employability, and asked whether each of these components do indeed impact perceived employability.

H1: Perception of the Army will have an effect on self-perceived employability of enlisted soldiers and short-term conscription officers.

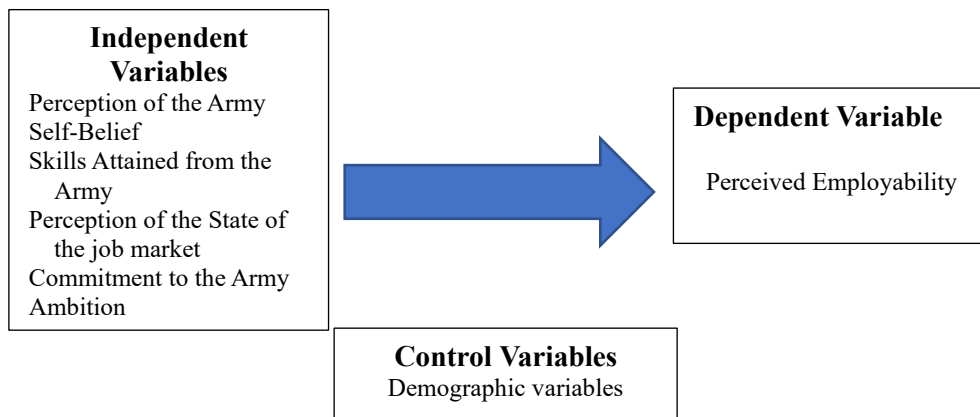
H2: Self-Belief will have an effect on the self-perceived employability of enlisted soldiers

H3: Skills attained from the army will have an effect on the self-perceived employability of enlisted soldiers and short-term conscription officers.

H4: Perception of the state of the job market will have an effect on the self-perceived employability of enlisted soldiers and short-term conscription officers.

H5: Commitment to the Army will have an effect on the self-perceived employability of enlisted soldiers and short-term conscription officers.

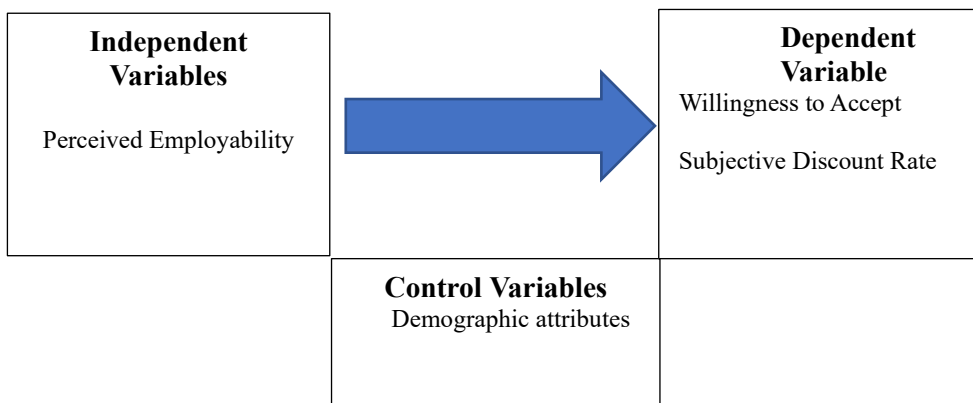
H6: Ambition will have an effect on the self-perceived employability of enlisted soldiers and short-term conscription officers.



The second component to this research is to examine the relationship between employability and value of time. Through the literature review conducted in regards to students deciding to delay graduation, it became clear that students willingly delayed moving onto the next chapter of their lives, in order to better prepare themselves for employment, regardless of objective perceptions and measures of employability determined that they were qualified to join the workforce. Hence, elements of opportunity cost of time seems to play an integral role in determining the valuation of time. Thus in this component, using *self-employability* as the independent variable, we will attempt to determine whether negative perception of one's self-employability would indeed lead to greater valuation of one's time (the less a person believes he or she is employable, the greater urgency they would feel to right that situation). In the WTA perspective, this would mean, an increase in the amount soldiers are willing to accept. In addition, lower employability would mean greater value added to the present, thus, a higher subjective discount rate is also expected.

H7: Negative perception of one's employability will have a positive impact on one's subjective discount rate

H8: Negative perception of one's employability will have a positive impact on one's the amount one is willing to accept



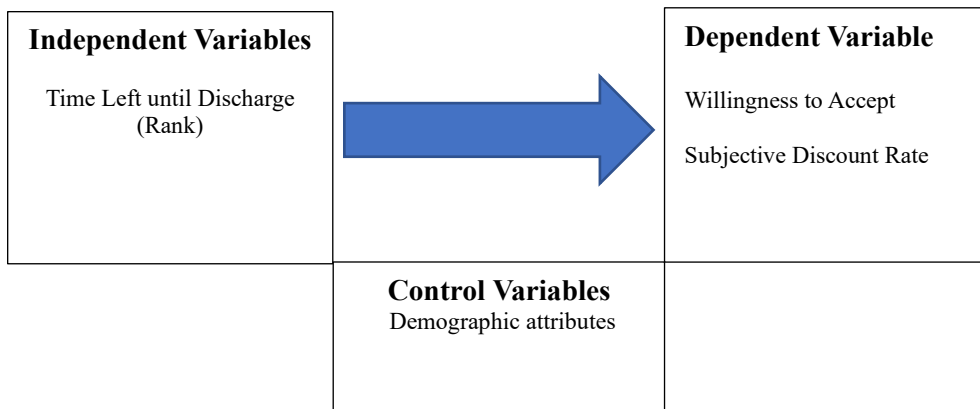
The final component, of this paper will examine the effects that being closer to the frontlines of employment has on one's valuation of time. Quite similar to how older individuals, and terminally ill individuals show a discrete behavioral pattern than younger, carefree, time-is-unlimited believing individuals, this hypothesis posits that soldiers who are closer to being discharged, hence closer to the boundaries of employment, will exhibit greater valuations of their time. Thus, the closer soldiers are to their date of discharge, the higher the Subjective Discount Rate would be, and higher the Willingness to Accept amount would be.

H9: The closer an enlisted soldier is to being discharged, the greater his subjective discount rate will be.

H10: The closer an enlisted soldier is to being discharged, the greater his willingness to accept amount will be.

H11: The closer a short-term conscription officer is to being discharged, the greater his/her subjective discount rate will be.

H12: The closer a short-term conscription officer is to being discharged, the greater his/her willingness to accept amount will be.



3.2 Research Design

3.2.1 Employability Survey

<Figure 3-1> Components of perceived employability of soldiers

Perception of Army			Skills Attained from Army
1. My engagement with my service and service performance	2. Perception of the reputational strength of the Army per society and job market	3. Reputation of the Army has as an institution to foster employable skills	
8. My confidence in my personal skills and abilities	9. My Ambition	4. Perception of the skills attained from the Army	
7. My awareness of opportunities in the external labour market	6. My perception of the state of the external labour market	5. External labour market's demand for people with my skills	
Self-Belief	Perception of the State of the External Job Market		

Adapted from Rothwell et al, Journal of Vocational Behavior, 2009

To address the research aims, respondents of the survey will answer a direct perceived employability question, which is answerable on a 5-scale Likert rating. Then, to understand the subcomponents of employability and its effect upon perceived employability, a survey about the different components of employability developed by Rothwell et al (2008) for bachelors' studies students and graduate students were adapted to fit the influence of the army as an institution (in substitution for university's impact as an institution). The employability scale was based on the four-sided, 9 item model representing the primary influence of each of the four components of the model (Individual Skills Behavior, Perception of Army, Skills Attained from Army, Perception of the State of the External Market), denoted by cells 2,4,6 and 8 and the interaction of the two adjacent components in cells 1, 3, 5 and 7. As Rothwell et al's scale is based on students, components associated with 1,2,3,4,5 were My University and My Field of Study. To specify the army component, "My University" was replaced with "Perception of the Army" and "My Field of Study" was replaced with Skills Attained from the Army. To account for the changes, the related cells were also readjusted to better fit the model. Cell 1 refers to the interaction between the Individual and the perception of the army. Cell 2 asks of the primary influence the perception of the army vis a vis employment. Cell 3 asks how the army is considered in relations to the variety of skill sets that can be attained from

service. Cell 4 asks questions in regards to the value of the army as an institution to instill various employable skills. Cell 5 asks about how the individual believes the external market values the skills attained from the army. Cells 6 and 7 asks presents a particularly “contemporary concern: the influence of the state of the external labour market” (Rothwell et al, p. 154, 2009). Cell 8 asks of the individuals perception of their current levels of employability in terms of *specs*. Finally, cell 9 asks of the participants personal ambitions. Ambition is used as a proxy for an individuals perception of future career success. Each cells correspond to two questions of the survey (i.e. questions 1 and 2 correspond to cell 1, questions 3 and 4 correspond to cell 2 and so on). Questions were limited to two, for the purposes of shortening the time it takes to complete the survey. As soldiers live a pre-scheduled life, making this survey as least intrusive as possible was considered to be paramount. An additional section within the survey asks about the participants’ commitment to service. Due to the unique nature of military service, and the singularity of the experience soldiers go through as opposed to students, a separate section that highlights how participants view the army as an institution was deemed necessary to be included. Finally, a separate 5 question ambition questions are asked. Survey questions 1~16 is a measure of one’s internal and external perception of employability. Questions 17 ~ 21 asks about the effects of one’s commitment to the army. Questions 22 ~ 26 asks about one’s own levels of ambition. The entirety of this survey is expected to take around 15 minutes. The answers are noted on a 5 point Likert scale. The entire survey can be viewed in appendix A.

In the development of the employability model, the independent variables were tentatively chosen as the four component of the Employability survey. However, literature review shows that interactions of adjacent cells also have an influence upon employability. In Rothwell et al’s (2008) case, the researchers conducted a Principle Component Analysis (PCA) using a varimax rotation on the survey questions, and were able to specify a four factor solution. The four factors were internal employability, external employability, university commitment, and ambition. Although, similar results can be expected, it cannot be said for certain until the surveys are filled out. Hence, this paper will also conduct a PCA analysis to find the

true components that effects employability, and the independent variables will be readjusted dependent on the results.

3.2.2 Development of Subjective Discounting Survey

The questionnaire regarding Subjective Discount Rate begins by asking the participants to carefully read a scenario. The scenario claims that a value of ₩1,000,000 (for enlisted, ₩5,000,000 for officers) is to be deposited today. However, by delaying this deposit by 1 week, 3 months or 1 year, they are able to receive a different amount. The participants are then asked to write down how much they are willing to receive in the 3 different future time periods. This scenario was based on the scenario used by Lahav et al. (2011). The amount of ₩1,000,000 and ₩5,000,000 were used as a proxy for an amount of money that is both reasonably large but not extravagantly excessive that an objective perception of its worth was untenable. The two numbers correspond to the average of the monthly wages of enlisted soldiers and officers, doubled then rounded up to the nearest one million won. The time frames of 1 week, 3 months and 1 year was used to identify the subjective discount rates of close future, mid-length future, and long-term future. As literature review suggested, people tend to have a difficulty correctly measuring a period too far into the future, thus 1 year was deemed to be an adequate stand-in for long-term future.

Taking into account, the vast literature on time preferences, a hyperbolic discount rate that was utilized by Lahav et al (2011) will be used. The annual discount rate for delaying payment is to be calculated as follows:

$$r = \left(\frac{P}{X} - 1\right) * \frac{12}{t}$$

Where r is the discount rate, P is the amount the subject is willing to accept in t months, for delaying the receipt of the amount X today. X is fixed at ₩1,000,000 for enlisted soldiers, and ₩5,000,000 for officers.

3.2.3 Development of the Willingness to Accept Survey

Willingness to Accept survey begins by asking the participants to imagine a scenario where they are given an opportunity to extend their service period by 6 months, without any changes to their rank or mission. Then the scenario asks “If you are paid an X amount more than the wage received at the end of your service as a sergeant, will you decide to extend your service for an additional 6 months?” The answer choice for these questions are either “I will apply” or “I will not apply.” As wage levels differ significantly between enlisted soldiers and officers, the additional monthly wages, or X, are different between the two surveys. For the enlisted, the increases in their monthly wage, or X, are ₩50,000, ₩200,000, ₩500,000 and ₩1,000,000. Since that the wage a Sergeant would be paid prior to his discharge is 540,000, the price point at which an enlisted soldier becomes willing to accept the extension will be added to the 540,000 to symbolize the willing wage. On the other hand, for officers, since their wage itself is considerably higher than that of the enlisted soldiers, the value at which the increase to X begin is larger. Officers are able to choose from an increase in monthly wage by ₩100,000, ₩200,000, and ₩500,000. Note that rate of increase is far more tapered for short-term conscripted officers than it is for enlisted soldiers, because, any increases higher than the listed numbers would lead to the individual receiving a wage that is reserved for a rank superior to their own. To figure out the willingness to accept monthly figure, the price points were added to the approximate monthly wage an officer would have received if he was honorably discharged after 3 years of service, which is approximately 2,000,000 KRW. Finally, for both surveys, the final question regarding Willingness to pay asks the individual whether “there is no wage that can be given that could entice them to apply”, and the answer choice is slightly altered to “I will apply if I am paid _____”, with a blank area for the participants to personally fill in their answer.

The length of 6 months was chosen also chosen specifically, as to not have it coincide with other programs currently in place within the army for service extension. For example, enlisted soldiers are already able to extend their service period for a

minimum of 6 months, through a program known as paid volunteer enlistment, which bestows upon the soldiers added incentives such as a promotion in rank, greater pay and even changes in duties. Similarly, short-term conscription officers are also able to extend their service period for a minimum of 12 months. A 12 month extension usually includes an increase in rank (especially, if the soldier is being discharged as a 1st Lieutenant), and a jump in salary due to increase in one's salary class. Hence, to isolate the effect of extended time, other elements of extending service, such as promotion of rank, changes in duties and responsibilities, leadership opportunities and pressure, increase in wage in line with wage-class levels and promotions were purposefully taken out.

3.2.4 Demographics Questions

Two different but similar sets of questions asking the personal backgrounds and military backgrounds of the enlisted and officers are asked. In the enlisted survey, question regarding their military service are of the participants current rank, military occupational specialty, and the number of months left of service is asked. Additional personal questions such as age, marriage, number of children, level of education, field of study, prior work experience and family's monthly average monthly income are asked. On the other hand, for the officers, questions regarding the military service delve in more specifically, as it begins by asking for their commission type (KMA, ROTC, OCS etc), current rank, rank at commission, whether they are a short-term or long-term officer, army branch, and finally the number of months left until discharge. The personal questions are the same as the enlisted with the exception that an additional question regarding sex is asked.

3.2.5 Participants and Data Collection

Prior to dissemination and collection of Data, the survey was inspected and approved by the Army Headquarters and was also successfully vetted for security inspection by the necessary authorities. The survey was circulated to battalion level commands, and higher echelon commands, from April 25th until May 5th 2020. where there is a large distribution of field grade officers and entire ranks of enlisted soldiers.

The target population in this study were enlisted soldiers of all ranks and

conscripted officers between the ranks of Captain, 2nd Lieutenants and 1st Lieutenants.. Due to the effects of COVID-19 upon travel bans on all soldiers, the survey was delivered by the researcher to the commands, but was administered without the researcher present. The enlisted soldiers were all from the same battalion, located along the northern frontier. The officers were from diverse stations, but mainly from the highest command echelons.

Although more than 500 survey papers were circulated, due to circumstances within each of the units, especially in light of the COVID-19, actual responses returned were 295. Of these responses 42 responses were unusable because they were either erroneously filled out, questions left incomplete, or had answers that were simply undecipherable. In total, there were 188 usable surveys returned by enlisted soldiers, and 65 responses from field officers.

Chapter 4. Results

4.1 Enlisted Soldiers

4.1.1 Individual Characteristics of Enlisted Soldiers

The descriptive statistics of individual attributes are shown in the table in Appendix B. The demographic characteristics encompasses everything, ranging from the respondent's current rank, the military occupational specialty, time left until discharge, age, marital status, number of children, educational level, major, previous work experience and monthly family income.

The majority of the enlisted soldiers' rank were private first class, who represented 48.94% of the entire survey cohort. The next most were Corporals, at 29.79%, Sergeants at 12.77% and Privates at 8.51%. The MOS of these enlisted men were mainly combat soldiers (79.79%), with only a handful of soldiers specializing in communication, transportation, administration and other. There was also very little age dispersion with 86.7% of the men being between the age bracket (international age) of 20-25, whilst 11.17% were younger than 20 and a mere 1.6% were between 26-30 years of age. 1 person responded to be over the age of 30, accounting for 0.5%. As most enlisted soldiers apply to complete their conscription duties between their 1st year of university and 3 year of university, the lack of disparity in age is not unusual. Moreover, 100% of the respondents were unmarried, and no one had any children.

There were more balanced responses in terms of academic background – 20.21% had either a high school diploma or lower, 20.21% were currently attending 2 year colleges, 54.79% were current students of a 4 year university, and 4.79% responded to have had graduated from university. No one had degrees higher than a bachelors' degree. There were also a good balance between the respondents' fields of study with 'other', 'engineering', 'social sciences' and 'humanities' being the four most popular responses respectively. The fact that 'other' fields of study was so popular could be attributed to the fact that around 75% of the respondents did not matriculate to a traditional 4 year university, thus their degree may not fit the standard choices of university majors. The vast majority of respondents, 80.32% responded to have had previous work experiences, including part-time jobs.

Considering that most university students do indeed partake in some form of economic activity, such a high response rate of having had some form of work experience is unsurprising.

In terms of monthly family income, 52.6% responded to be within an income bracket of 3,010,000~5,000,000 KRW. 20% of the responded to be between 1,000,000~3,000,000 KRW and 17% were between 5010,000~7,000,000 KRW. 7.45% had an house of income greater than 7,000,000 KRW whilst only 2.66 were from a family with income below 1,000,000 KRW

Finally, the mean value for perceived employability for enlisted soldiers were 3.255. As the survey was conducted on a 5-scale Likert chart, with 1 and 5 representing strongly disagree and strongly agree, and 2 and 4 being disagree and agree, a 3 represents a 'neutral' response. Thus a 3.25 would place the enlisted soldiers slightly right of 'neutral' but not yet being able to wholeheartedly agree to a status of being positively employable.

<Table 4-1> Summary of the perceived employability of enlisted men

	Mean	SD	Min	Max
Perceived Employability	3.26	1.00	1	5

4.1.2 Factors of Employability

To explore how the survey performed in terms of adequacy in ascertaining the four prescribed components of a soldiers' perceived employability - Perception of Army, Perception of the Skills attained from the Army, Perception of the State of the job market, and Self-belief- in addition to the surveys regarding Ambition and Commitment to the Army, a series of principal component analyses were conducted on the data to the survey questionnaire. Of course, the questionnaires for the enlisted soldiers and short-term conscription officers were treated separately. All three questionnaires were subjected to the PCA analyses together, and after having identified the components with eigenvalues of 1 and above (as per Kaiser's criterion), the matrix was put through a varimax rotation to better group the questions together. The grouping of questions were then examined to isolate those that had correlation values of 0.3 and above, and only those were accepted into the components (see table

XX in the appendix for PCA).

PCA analysis on the surveys responded to by the enlisted soldiers showed five components with eigenvalues of 1 and above. The 5 components accounted for 31.7%, 13.23%, 6.54%, 5.99% and 4.72% of the variance respectively and in total, 62.19% of the total variance. With the 5 factors determined, the correlation matrix was inspected for correlation coefficients of 0.3 and above, as presented in Table 5-9 below.

<Table 4-2> Correlation analysis of each question by components

Question	Comp 1	Comp 2	Comp 3	Comp 4	Comp 5
1					0.5333
3					0.4294
4		0.4107			
5		0.4664			
9					0.4821
10		0.3285			
12				0.5333	
13				0.4294	
14				0.4821	
17	0.3978				
18	0.3984				
19	0.3768				
20	0.3962				
21	0.399				
22			0.3402		
23			0.5059		
24			0.4584		
25			0.3989		

Component 1 drew its questions from the Commitment to the Army section, which mainly asked questions such as “I am proud to tell others that I am a soldier in the ROK Army” and “the values of the Army and my internal values are aligned.” Component 2 mainly drew its questions from perception of the Army and skills attained from the Army section, with the overarching theme of the questions in this section being how highly recruiters perceive the skills and experiences of the time spent in uniform. Component 3 was composed completely of questions from the ambition survey. Component 4 corresponded to the Perception of the State of the Job

Market section of the employability survey, whilst Component 5 was mainly in regards to how respondents themselves believed in their own skillsets its value in assisting in attaining their dream job. Thus, Component 1 was named Personal Commitment to the Army, Component 2 was named (Perception of the) Value of Army experience, Component 3 was named Ambition, Component 4 was named State of the Job Market and finally, Component 5 was named Self-belief. Internal reliability test of Cronbach Alpha was ran on all of the components, with all 5 showing acceptable levels of internal reliability. Component 1 to 3 all scored alpha scores higher than 0.7, with component 4 lagging at alpha levels of 0.6. Component 5 showed only barely adequate internal reliability at alpha of 0.55.

<Table 4-3> Survey questions by components

Component ID	Question ID	Survey Question Description	Correlation Coefficients	Alpha
(C1) Personal Commitment to the Army	17	I feel proud to be a member of the Army	0.3978	0.9152
	18	The values of the army, and my internal values are in line	0.3984	
	19	I feel proud to tell others that I am a member of the Army	0.3768	
	20	I am happy to have applied to the Army, as opposed to another service	0.3962	
	21	I have interest in the future of the Army	0.399	
(C2) Perception of the Army Experience	4	I believe that my army experience will help me in recruiting	0.4107	0.7555
	5	Recruiters highly value the skills attained from the army experience	0.4664	
	10	My experiences so far will be positively valued by the employers of my dream job	0.3285	
(C3) Ambition	22	I want to be in a position to do mostly work which I really like	0.3402	0.7219
	23	I have clear goals for what I want to achieve in life	0.5059	
	24	I am highly ambitious	0.4584	
	25	I feel it is urgent that I get on with my career development	0.3989	
(C4) State of the Job Market	12	There are plenty of job vacancies in the market	0.5333	0.6028
	13	I can easily find out about opportunities in my chosen field	0.4294	
	14	The skills that I have match the skills recruiters are looking for	0.4821	
(C5) Self Belief	1	I am highly regarded in my position/specialty by everyone around me	0.5333	0.549
	3	Recruiters believe soldiers make great candidates	0.4294	
	9	People in the career I am aiming for are in high demand in the external labour market	0.4821	

4.1.3 Relationship between Perceived Employability and the Factors of Employability

A) Correlation analyses between Employability and Independent variables

The first two factors that were considered were the personal Commitment to the Army and Perception of the Army experience, for they both represent the effect of the Army upon employability. The first factor, “Commitment to the Army” showed

some low association to perceived employability with positive Pearson correlation r value of 0.2639, which was statistically significant with a p -value of 0.0003. Moreover, the second factor “Perception of the Army Experience” showed relatively higher levels of correlation, its r value amounting to 0.2938, with statistically significant at alpha levels below 0.01 (see table 5-11).

The third and fourth factors, which are labelled Ambition and Self-belief, were also considered together, for they represent the role of internal personal factor of self in light of perceived employability. Ambition showed quite a moderate level of correlation with perceived employability, with its r value at 0.3313, and p value statistically significant at $p < 0.01$. However, the Self-belief factor showed low amounts of correlation with perceived employability; its r value was 0.1330 and p value of 0.0689 making it statistically insignificant.

The final factor, “(perception of the) State of the Job Market” stood alone, as it delineated the external aspect of perceived employability. The correlation between perceived employability and the state of the Job Market was of substantial association, as its r value was recorded at 0.5383 and was statistically significant at $p < 0.01$.

<Table 4-4> Correlation Analysis of Employability and its subcomponents

	Perceived employability	Personal Commitment to the Army	Perception of the Army Experience	Ambition	Self Belief	State of the Job Market
Perceived employability	1.0000					
Personal Commitment to the Army	0.2639* 0.0003	1.0000				
Perception of the Army Experience	0.2938 0.0000	0.5519 0.0000	1.0000			
Ambition	0.3313 0.0000	0.0571 0.4364	0.2131* 0.0033	1.0000		
Self Belief	0.1330 0.0689	0.2987* 0.0000	0.4639* 0.0000	0.2315* 0.0014	1.0000	
State of the Job Market	0.5383 0.0000	0.5383* 0.0022	0.3498* 0.0000	.2512* 0.0005	0.2077* 0.0042	1.0000

B) Correlation analyses between the Independent variables

Prior to looking at the multiple regression analyses, an additional series of correlation analyses were conducted to see the relationship between the independent

variables. The first grouping of correlation analyses were between the external factor (State of the Job Market) and the Internal factor (Ambition and Self-belief). The State of the Job Market variable showed low association with Self-belief, with r value at 0.208 and a p value statistically significant at $p < 0.01$. Similarly, the State of the Job Market and Ambition showed low association and a statistically significant p value ($r = 0.2512$, $p = 0.0005$). Thus, the external factor showed low association with both of the internal factors.

The relationship between the external factor with the two Army related factors showed moderate to low association. The Pearson correlation r value between the State of the Job Market and the Army Commitment factor was 0.2220, with statistically significance of level of $p < 0.01$. The correlation coefficient between the State of the Job Market and the Perception of the Army Experience factor came out to be higher at 0.3498, thus moderate association, its p value significant at $p < 0.01$.

Finally, the correlation between the two internal factors and two army factors were considered together. The Self-belief factor was found to have moderate to low association with the two army factors. The correlation coefficient between Self-belief and Commitment to the Army showed r value of 0.2987, thus low correlation, but showed moderate correlation with the Perception of the Army experience factor at r value at 0.4639. However, the Ambition factor showed only low correlation with the Perception of the Army experience factor, at r value of 0.2131 and statistically significant at $p < 0.01$ but no statistically significant correlation with the Commitment to the Army factor; its r value was a mere 0.0571 hence only negligible correlation between the two factors.

C) Multiple Regression Analyses

Building on the correlation analyses, multiple regression analyses were conducted. First, a multiple regression analysis on the Army related variables, “Commitment to the Army” and “Perception of the Army Experience” were taken as the independent variable against the dependent variable of Perceived Employability. As shown in Table 5-12, the multiple regression shows goodness of fit, R-squared value of 0.1012, and adjusted R-squared of 0.915. Of the two independent variables,

Perception of the Army shows statistical significance, and a coefficient of 0.26. Commitment to the Army variable shows a slightly high p value of 0.082, pushing it out of the statistically significant range at alpha levels of 0.05. The coefficient of the commitment of the Army factor came out to be 0.1567. The coefficient of the constant was 1.905.

A multiple regression on employability, using independent variables denoting internal factors such as Ambition and Self-belief showed an R-squared value of 0.1131, adjusted R-squared value of 0.1035. Ambition showed statistical significance, at $p < 0.01$. The Ambition variable showed a coefficient of 0.468. The Self-belief variable showed no statistical significance, its p value calculated to be 0.4. Thus, although the Self-belief variable does not have any meaningful effect upon perceived employability, the Ambition variable seems to have a positive effect on employability; the more ambitious a soldier feels he is, the higher he marks on the perceived employability measure.

To see the relationship between the external, state of the job market variable and the dependent employability variable, a simple regression was used. The R-squared value was 0.2897, with adjusted r-squared at 0.2859. With statistical significance at $p < 0.01$, state of the job market variable showed a coefficient of 0.8160, proving that indeed how respondents viewed the current atmosphere of the job-search arena has a relatively large impact upon how one views his own employability.

To see how these different factors interplay with each other, each of the subcomponent factors were added into the multiple regression model to ultimately have all the factors together in the model. A multiple regression with both Army factors and ambition factor, displayed an R-squared value of 0.1823 and adjusted R-squared value of 0.169. The ambition factor brought down the p value of the commitment to the Army variable by 0.048, now turning the commitment factor statistically significant and $p < 0.05$. On the other hand, the ambition factor increased the p value of perception of the army experience by 0.085, pushing the variable out of the statistically significant alpha level of 0.05. Ambition itself, even in relation to the Army factors, was still statistical significance at $p < 0.01$ with coefficient of 0.431. Ambition also increased the coefficient values of 'commitment to the Army' and

‘perception of the Army experience’ by 0.027 while decreasing the coefficient value of ‘perception of the Army experience’ by 0.093.

An additional factor, Self-belief was then added to this model. In such an instance, it further reduced the p value of the ‘army commitment’ factor to 0.029 and ever so slightly increased the coefficient to 0.189. ‘Perception of the Army experience’ factor’s p value was reduced by 0.032 to 0.065, strengthening its significance. Neither the p value nor the coefficient of ambition was impacted much, showing that in this model of Army factors and Internal factors, self-belief further solidified the Army factors impact upon employability. Self-belief itself, displayed no statistical significance at p value of 0.397, although interestingly, it took on a negative coefficient.

Finally the state of the job market factor was placed into the regression. With all the employability factors in place, the R-squared value came out to be 0.3398, with adjusted R-squared value of 0.3217. The variables that showed statistical significance were ‘commitment to the Army’, ‘ambition’, and the ‘state of the job market’. The state of the job market variable forced considerable change to the perception of Army experience variable, its p value sky rocketing to 0.5 and coefficient reducing by 0.132 to 0.067. The constant, also took on a negative coefficient, at -0.253. The effect of the state of the job market variable had on this model cannot be understated. Simply from looking at its effect on not only the R-squared and adjusted R-squared values, but also on the variables that, without it, could have been misconstrued to have had a statistically significant impact on employability. Even the coefficient of the state of the job market variable, $\beta = 1.231$, hints at its comparatively large impact upon perceived employability.

<Table 4-5> Multiple regression of the subcomponents of employability

Independent Variables		β Coef	t	p	R-squared	Adj R-squared
Army Related	Commitment to the Army	0.168687	2.17	0.032*	0.3398	0.3217
	Perception of the Army Experience	0.066535	0.68	0.500		
Internal	Ambition	0.354438	3.8	0.000***		
	Self-Belief	-0.125478	-1.22	0.223		
External	State of the Job Market	1.231482	6.52	0.000***		
Constant		-0.252554	-0.55	0.585		

The relationship between the ‘state of the job market’ and the ‘perception of the Army experience’ merits further investigation. The correlation between the ‘perception of the Army experience’ and the ‘state of the job market’ showed moderate association. After running a multiple regression analysis on just the Army related factors and the state of the job market factor on perceived employability, the p value of the ‘perception of the Army experience’ increased by 0.482, from 0.012 when only the Army factors were considered, to 0.494. Furthermore, considering that the p value of the perception of the Army experience factor only rises by 0.006 to 0.5 when all 5 factors present, the impact that state of the job market factor has on the perception of the Army experience must be noted. In understanding this relationship, it seems that soldiers tend to validate their army experience not as a standalone experience, but through the lens of the state of the job market. Thus, the perception of the army experience may not directly impact employability itself, even though it is heavily impacted by the concept of employment via their perception of the job market.

D) Multiple Regression Analyses, with Individual Characteristics.

To control for the effects of the demographic variables, they were added to the multiple regression analyses of the factors model. The demographic variables that were chosen were rank, military occupational specialty, age, level of education, major, previous work experience and household income. Demographic variables such as time left to discharge was taken out, as rank was considered a better measurement, and both marital status and number of children were disregarded because none of the enlisted soldiers were married, nor had started families of their own.

The result of the multiple regression, with control variables, are as shown in Table 5-16. The model itself had an R-squared value of 0.411, with an adjusted R-squared value of 0.344. The addition of the control variables did not shift any p-values into or out of the statistically significant range of $p < 0.05$, nor did it drastically change any of the coefficients of the statistically significant independent variables. The extent of the changes were an increase in the coefficient of the commitment to the Army by a mere 0.012, and reduction in the coefficients of the ambition variable and

the state of the job market variable by 0.023 and 0.539 respectively.

<Table 4-6> Multiple regression with the variables

Independent Variables		β Coef	t	p	R-squared	Adj R-squared
Army Related	Commitment to the Army	0.181267	2.23	0.027*	0.411	0.344
	Perception of the Army Experience	0.08794	0.87	0.383		
Internal	Ambition	0.331498	3.44	0.001		
	Self-Belief	-0.155039	-1.43	0.155		
External	State of the Job Market	0.69225	6.92	0.000***		
Demographic variables	Rank	0.022514	0.28	0.781		
	MOS (combat as dummy)					
	Communication	0.195925	0.67	0.503		
	Transportation	0.063354	0.25	0.803		
	Administration	-0.116435	-0.36	0.717		
	Other	0.661509	2.39	0.018*		
	Age	-0.141026	-0.84	0.404		
	Level of Education	-0.08652	-0.66	0.513		
	Major (Humanities as dummy)					
	Social Studies	0.179629	0.92	0.36		
	Engineering	0.014119	0.07	0.942		
	Natural Sciences	-0.058903	-0.18	0.858		
	Education	0.199552	0.33	0.741		
	Other	0.024907	0.09	0.929		
	Previous work experience	-0.062201	-0.39	0.699		
	Monthly household income	0.191484	2.72	0.007*		
Constant		-0.53938	-0.74	0.459		

Although the demographic variables did not greatly impact the magnitude by which the independent variables effected the dependent variables, there were still two demographic variables that showed statistically significant relationships with perceived employability. The first was the military occupational specialty. Enlisted soldiers who responded to have *other* specialties than combat responded 0.662 points higher in the perceived employability scale. In addition, monthly household income was found to have a significant relationship with perceived employability, at alpha levels of 0.05. With the coefficient at 0.19, enlisted soldiers who responded to have higher monthly household income scored 0.19 points higher in his perceived employability score.

4.1.4 Relationship between Perceived Employability and Time

A) Weekly, Monthly and Yearly Discount Rates and Employability

To find the relationship between Employability and time, the first of the results that were analyses was the relationship between perceived employability and the discount rate. A correlation analysis was first observed to gain a basic understanding

of the relationship. If the p value was statistically promising, a simple regression analysis was further undertaken.

A Pearson correlation between weekly discount rate and perceived employability was first conducted. The results showed a correlation coefficient of 0.1126, which implies low correlation, but with a p value of 0.1238, it was statistically insignificant.

A Pearson correlation between monthly discount rate and employability found a correlation coefficient of 0.1104, which again suggests low correlation. However, the p value was again at 0.1313, so it was statistically insignificant. The correlation between yearly rates and employability found an even weaker association, with its coefficient at 0.0801, hence a negligible association. As such, the p value for this association was 0.2743 thus, for all three discount rates, there were no statistically significant relationship with employability.

B) WTA and Perceived Employability

The second section that explored the relationship between the value of time and employability was with the willingness to accept portion of the survey. In its simplicity, the question asked the different levels of extra money that would entice current soldiers to serve an extra 6 months in uniform. The soldiers were able to reply, 'no' to every question which will denote that they are adamantly unwilling to stay longer in uniform. Then, the ranges of extra money that the soldiers would receive on top of the ₦540,000 that the soldiers would be paid at the point of their discharge, started from ₦50,000 and increased to ₦200,000, ₦500,000 and ₦1,000,000 with the final question asking the respondent to fill in the monthly wage they hope to receive, in order to coax a 'yes' answer from them. Thus, when coding, if answered a respondent answered yes to the question, the amount the respondents were willing to accept was added to the ₦540,000 to get the actual willingness to accept amount.

Of the 188 respondents to the survey 57% or 107 soldiers responded that they would want to extend their service, given the right amount of extra monetary incentives. The willingness to accept amount ranged from 0, which denotes

preferences that implied that no amount of money would lead them to want to extend their service period, to ₩20,000,000, which was written as a free response. The mean was ₩1,250,000 with a median value of ₩1,040,000.

The first calculation that was undertaken was a correlation test between the two variables. There was a positive correlation between the willingness to accept amount and levels of employability. The relationship was low association, but still statistically significant at $p < 0.05$. With such correlations, a simple regression test was conducted to explore the relationship further. The R-square of the regression model came out to be 0.02, with the p value was statistically significant at $p < 0.02$. The Coefficient of the employability variable was 31.6. Thus, for each increase in the employability scale, the willingness to accept amount increased by 310 thousand won. To put it another way, for each unit of increase in employability, the value of post-military 6 months increases by 310 thousand won.

<Table 4-7> Regression analysis of Employability and Willingness to Accept

Indepenent Variables	β Coef	t	p	R-squared	adj R-squared
Employability	31.6001	2.35	0.002*	0.0288	0.0235

4.1.5 Relationship between Rank and Value of Time

A) Weekly Discount Rate and Rank

A summary of the subjective discount rate for weekly, monthly and year delay of payment by rank is as follows. For all three time periods, privates accounted for the lowest mean discount rates (6.24, 6.238, 7.8 repectively). Furthermore, Private First Class rank held the highest mean discount rates at 23.494, 17.021 and 25.542 respectively. Corporal rank responded to the second largest mean, whilst Sergeants responded with the lowest mean discount rate for all three time periods. The breakdown of rank and discount rates can be found in appendix H. Finally, correlation analyses between the discount rates and rank were conducted. For all three time frames, no statistical significant relationship was found.

B) Relationship between WTA amount and Rank

The breakdown of soldiers who replied that they would consider service extension is as shown in Table 5-21. By volume, soldiers of Private First Class rank answered most be willing to extend their service, with 50 PFC responding as such. However, in terms of proportion of total respondents in said rank versus those who answer ‘yes’, 71% of Sergeants answered that they would extend their service for an additional 6 months. Following the Sergeants were the Corporals, at 59%, Private First Class at 54% and finally, Privates at 44%.

<Table 4-8> Willingness to extend service by rank

Rank	No	Yes	Proportion	Frequency
Private	9	7	44%	16
PFC	42	50	54%	92
Corporal	23	33	59%	56
Sergeant	7	17	71%	24
Total	81	107	57%	188

<Table 4-9> Amount soldiers are willing to accept service extension by rank

Rank	No	₩ 590,000	₩ 740,000	₩ 1,040,000	₩ 1,540,000	Other amounts	Frequency
Private	9	1	0	1	3	2	16
PFC	42	2	0	7	18	23	92
Corporal	23	0	0	4	7	22	56
Sergeant	7	0	1	1	10	5	24
Total	81	3	1	13	38	52	188

Whist no soldiers of the higher rank agreed to extend their service for an additional fifty thousand KRW, 3 Privates and PFCs answered that they would. The most popular answer choice was to receive an addition 1 million won, which would boost a Sergeant’s monthly wage to 1.54 million won, placing their wage only 120 thousand won behind the monthly wage of Staff Sergeant, the next rank up from Sergeant. In terms of the other amounts section, the dispersion between the answered were varied, with the mean wage written in at 3 million KRW with the max amount being 20 million KRW. As expected, the standard deviation was 2.75 million KRW.

To find the relationship between rank and the willingness to accept amount, Pearson correlation was again used between the two variables. The result was that there indeed was a positive, albeit low association relationship between the two variables, with the r value at 0.19 and statistical significance at $p < 0.05$. Building upon this relationship, a simple regression was conducted. The results of the regression are as follows. The R-squared of the regression model was 0.0357, with

the beta coefficient being 42.856 at statistically significant p value of 0.009. Thus, it can be said that with each increase in rank, the amount a soldier was willing to accept increased by 420 thousand won.

<Table 4-10> Simple regression of Willingness to Accept and Rank

Independent Variables	R-squared	β Coef	t	p
Rank	0.0357	42.85604	2.63	0.009**

With both rank and perceived employability showing statistically significant positive relationship with the Willingness to Accept amount, they were both considered together to see how they affect not only each other, but also the WTA. Hence, a multiple regression analyses was performed with the two independent variables as well as the control variables. The R-squared value for the model was 0.0967, with both variables having p values that are statistically significant at $P < 0.05$. The coefficient for employability was found to be 27.411, whilst for rank, it was 44.17. None of the control variables affected the independent variables enough to push it out of the statistically significant range. Thus, increases in both employability and rank by a single unit would increase the willingness to accept amount by 274 thousand won and 441 thousand KRW won respectively. This, suggests that those who are of higher rank, and those feel that they are more

<Table 4-11> Multiple regression of the independent variables, control variables on Willingness to Accept

Independent Variables		β Coef	t	p	R-squared	Adj R-squared
Independent Variables						
	Employability	27.4111	1.98	0.049*	0.097	0.018
	Rank	44.16993	2.55	0.012*		
Demographic variables	MOS (combat as dummy)					
	Communcation	-59.7417	-0.91	0.363		
	Transportation	-2.678528	-0.05	0.963		
	Administration	-29.633	-0.41	0.683		
	Other	0.228	0.000	0.997		
	Age	-6.895	-0.18	0.857		
	Level of Education	11.965	0.4	0.686		
	Major (Humanities as dummy)					
	Social Studies	-12.3371	-0.28	0.78		
	Engineering	-5.3005	43.01485	-0.12		
	Natural Sciences	16.307	74.59871	0.22		
	Education	55.79444	136.6061	0.41		
	Other	40.7873	63.45894	0.64		
	Previous work experience	23.76299	35.74513	0.66		
	Monthly household income	25.733	15.91002	1.62		
Constant		.235.9203	139.4307	-1.69		

employable, value their time at a higher rate than those who are of lower rank and hold a lower personal perception of employability.

4.1.6 Summary of the Results

In summary, prior to conducting the survey, 6 factors of perceived employability were predicted, based on Rothwell et al (2008)'s model but refitted to match the landscape of the Armed Forces. The 6 assumed factors were Perception of the Army, Self-belief, Skills attained from the Army, Perception of the state of the job market, commitment to the Army and personal ambition for success. The PCA analyses uncovered 5 subcomponent groupings with eigen values of 1. Of the subcomponents of employability, 'perception of the job market', 'commitment to the army', and 'ambition' showed statistically significant relationship. These three independent variables were also minimally affected by the control, demographic variables allowing for the rejection of the null for hypotheses 4, 5 and 6 (Table 6-1).

Furthermore, perceived employability and rank both had a statistically significant effect upon the valuation of time for enlisted soldiers. Although neither rank nor perceived employability seemed to have any statistically significant relationship with the subjective discount rates, the two variables had a significant relationship with the willingness to accept amount. With willingness to accept, the coefficient of the employability variable was 27.4 ($p < 0.05$). Whilst with rank, the coefficient was 44.17 ($P < 0.05$). Hence, separately, increases in both rank and employability positively impacted the willingness to accept amount by magnitude of the £274,000 and £441,000 respectively.

4.2 Short-term Conscripted Officers

4.2.1 Descriptive Statistics

The demographic characteristics questions for officers were longer than that of the enlisted soldiers. In total, there were 14 questions, asking such questions as their commission background, rank at commission, current rank, whether they are short term conscripted or career officers, military branch, time left until discharge, age, marital status, number of children, educational background, major, work

experience, monthly income and sex.

Of the respondents, 67.69% replied to have earned their commission through the professional commission program, whilst 23% earned theirs through the ROTC program and 7% received theirs through the OCS program. Only 1 responded to have gained their commission via other means. Although in reality the vast majority of short-term conscription officers gain their commission through the ROTC and OCS program, the responses from these two groups were fairly low due to the fact that the survey was mainly circulated at the upper echelons. As COVID-19 prohibited movements to the lower echelons, where the majority of short-term conscription ROTC, OCS officers are stationed, the survey was only able to be distributed at the highest commands, where the majority of short-term conscription officers are professional officers. Every respondent received the rank of 2nd Lieutenant at commission, except for one, who was commissioned as a 1st Lieutenant. Only 7.69% respondents currently held the rank of 2nd Lieutenant, as opposed to 92.31% whose rank was 1st Lieutenant. As 2nd Lieutenants hold their rank for only 1 year before being promoted to 1st Lieutenant, and 1st Lieutenants retain their rank for 2 years before being discharged, it is only natural to have a much larger cohort of 1st Lieutenants than that of 2nd Lieutenants.

Moreover 90.77% replied to be part of a combat branch whilst 6.15% of the respondents were part of the other category, and 1.54% were part of the technical branch (transportation, quartermaster etc.) and another 1.54% replied to be part of the professional branch (Judge Advocate Generals, Army doctors, Army pharmacists etc.).

There was a good array of soldiers representing the different time frames left until discharge. 6.15% were newly commissioned officers with 36-32 months left until being discharged. 7.69% had 26-22 months left, 13.85% had 21-17 months left, 18.46% had 16-12 months left, 10.77% had 11-7 months left, 27.69% had 6-2 months left and finally, 15.38% of the respondents had less than 1 months left in their service period.

The age of the officers were all between 20 and 30, with 75% being between 26-30, and the rest being younger. No respondent was over the age of 30. Moreover, 4 respondents (6.15%) were married, although only 1 respondent had one child.

As the minimum requirement of being a short-term conscription officer is a bachelor's degree, 92% respondents graduated from university either in Korea or abroad. Digging a little deeper 47.69% of the students graduated from a foreign university, which is unsurprising as the majority of respondents of the officer survey gained their commission through the professional commission program, which has the highest number of foreign-university graduates. 7.7% replied to either currently be partaking in a master's degree or have attained a master's degree.

Exactly 60% of the respondents studied humanities in college, whilst 27% studied social science, 7% other, 3% sciences and 1.5% education. Moreover, 67.69% of the respondents claimed to have had work experience, including part time jobs. In terms of monthly family income, 46.15% were within an income bracket of ₩5,010,000 ~ ₩7,000,000. 27% of the respondents were from an income bracket of ₩7,000,000 and greater. 16.9% had monthly household income between ₩3,010,000~₩5,000,000.

Finally, the mean perceived employability score for short-term conscription officers was 3.4, which was 0.15 higher than of the enlisted soldiers. The standard deviation was less than 1 at 0.915, whilst the minimum response was 2 and the max was the full score at 5.

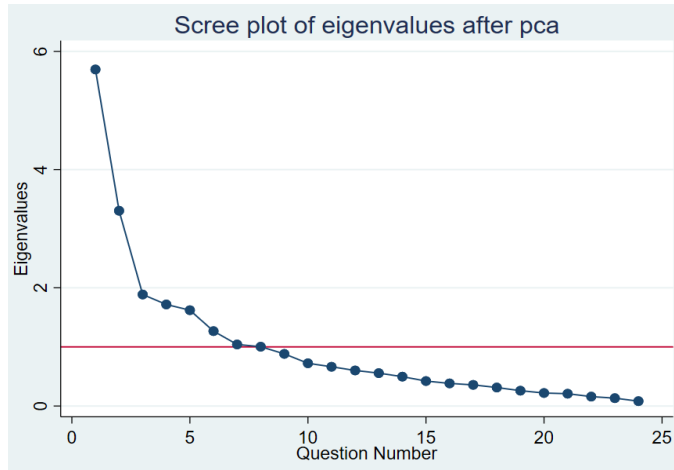
<Table 4-12> Summary of the perceived employability of short-term officers

	Mean	SD	Min	Max
Perceived Employability	3.40	0.92	2	5

4.2.2 Factors of Employability

The same steps were taken for short-term conscripted officers, as enlisted soldiers. The PCA analysis showed that there were six components with eigenvalues of 1 and above. The first six components accounted for 23.73%, 13.77%, 7.86%, 7.16%, 6.75% and 5.28% of the variance, which in cumulation accounted for 65% of the total variance (See Appendix F). A scree plot was examined (Figure 5-1), and there was a clear drop off, after the 6th component. Then, putting the matrix through a varimax rotation, only correlation coefficients of 0.3 and above were examined, as shown below.

<Figure 4-1> Scree plot of eigenvalues per survey question



<Table 4-13> Correlation analysis of each question by components

Question	Comp 1	Comp 2	Comp 3	Comp 4	Comp 5	Comp 6
1				0.9469		
3		0.4131				
4		0.4179				
5		0.4741				
8		0.4447				
9					0.5547	
10			0.3216			
11			0.3909			
12						0.4906
13					0.3055	
14				0.5028		
16				0.4189		
17	0.4044					
18	0.3618					
19	0.4529					
20	0.3195					
21	0.4315					
22			0.5800			
23						0.3611
24						0.5754
25					0.5329	

The entire question set for the first component, were drawn from the Commitment of the Army section of the survey, hence was labelled to the commitment of the Army. The second component drew its questions from the Perception of the Army section of the survey, where the questions mainly asked whether the respondents believed that ‘soldiers made for good candidates’ and whether ‘army experience would help them in recruitment.’ The third component

asked specifically about the value of the skills they attained from the Army, and its use in the job market as well as in their general future. Component 4 mainly asked for their views in how they would fare in the job market. As such, Component 4 was labelled self-belief. Questions categorized within Component 5 asked about the respondents' view of the State of the current Job Market, whilst Component 6 referred to questions regarding the personal ambitions of the individuals.

<Table 4-14> Survey questions by components

Component ID	Question ID	Survey Question Description	Correlation Coefficients	Alpha
(C1) Personal Commitment to the Army	17	I feel proud to be a member of the Army	0.4044	0.885
	18	The values of the army, and my internal values are in line	0.3618	
	19	I feel proud to tell others that I am a member of the Army	0.4529	
	20	I am happy to have applied to the Army, as opposed to another service	0.3195	
	21	I have interest in the future of the Army	0.4315	
(C2) Perception of the Army Experience	3	Recruiters believe soldiers make great candidates	0.4131	0.815
	4	I believe that my army experience will help me in recruiting	0.4179	
	5	Recruiters highly value the skills attained from the army experience	0.4741	
	8	Other people value the skills I learned from the Army highly	0.4447	
(C3) Skills attained from the Army	10	My experiences so far will be positively valued by the employers of my dream job	0.3216	0.632
	11	There is generally a strong demand for new candidates at the present time□	0.3909	
	22	I want to be in a position to do mostly work which I really like	0.5800	
(C4) Self-belief	1	I am highly regarded in my position/specialty by everyone around me	0.9469	0.595
	14	The skills that I have match the skills recruiters are looking for	0.5028	
	16	I feel I could get any job so long as my skills and experience are reasonably relevant	0.4189	
(C5) State of the Job Market	9	People in the career I am aiming for are in high demand in the external labour market	0.5547	0.433
	13	I can easily find out about opportunities in my chosen field	0.3055	
	25	I feel it is urgent that I get on with my career development	0.5329	
(C6) Ambition	12	There are plenty of job vacancies in the market	0.4906	0.356
	23	I have clear goals for what I want to achieve in life	0.3611	
	24	I am highly ambitious	0.5754	

To see the internal reliability of the components, a Cronbach alpha test, was conducted. As shown above, Component 1 and 2 favorable showed favorable alpha value of 0.885, and 0.815. Component 3 and 4 showed acceptable levels of alpha at 0.63 and 0.595 respectively. Component 5 showed low reliability at alpha = 0.4325, and Component 6 also showed low reliability at 0.3563. As such, Component 5 and 6 were disregarded as potential independent variables.

4.2.3 Relationship between Perceived Employability and the Factors of Employability

1) Regression Analyses

Prior to examining the regression relationship of the four components,

correlation analyses between the subcomponents and employability were conducted (Appendix H). Then, a series of smaller regression analyses of the internal component and perceived employability, as well as the Army related components and perceived employability were conducted separately to gain a better understanding of the component groupings relationship with the dependent variable. First, with the correlation between employability and the Self-belief component showing moderate association, a simple regression was run to see the nature of the relationship. The results showed that the coefficient of the Self-belief variable was 0.726, at a p value that was statistically significant at $p < 0.01$, with the coefficient of the constant at 0.93. Moreover, the r-squared of the model was 0.2428 (Table 5-36).

<Table 4-15> Simple regression of the Internal related subcomponent

Independent Variables		β Coef	t	p	R-squared	adj R-squared
Internal	Self-Belief	0.702	4.490	0.000***	0.243	0.231
	Constant	0.933	1.670	0.100		

Second, a multiple regression analysis on the Army related variables were conducted. The beta coefficient of the components and their p values are shown below. Within the Army related components, only the Skills attained from the Army showed statistical significance, with its coefficient at 0.34. Neither the commitment to the Army nor perception of the Army had statistical significance, although the coefficient of the commitment to the Army showed a negative relationship with perceived employability. Thus it seems to suggest that higher commitment to the Army values may reduce one's perceived employability, whilst greater perception of value in regards to the one's skills attained from the Army can positively effect employability.

<Table 4-16> Simple regression of the Army related subcomponents

Independent Variables		β Coef	t	p	R-squared	adj R-squared
Army Related	Commitment to the Army	-0.1029522	-0.73	0.469	0.1273	0.0843
	Perception of the Army Experience	0.1943733	1.26	0.211		
	Skills Attained from the Army	0.34018	2.3	0.025*		
	Constant	1.1956641	2.99	0.004		

The Self-belief component was then added to the multiple regression model to create the full dynamic between employability and all its components. Interestingly, with the addition of the Self-belief component, the ‘skills attained from the Army’ component’s p value shot up to 0.225, thus no longer within the realm of statistical relevance, and its coefficient was reduced by approximately half to 0.17 from 0.34. The other two army components, were also affected, though not as drastically. The relationship between the Self-belief component and the skills attained from the Army component was mentioned through the high correlation the two variables share. Thus, it can be interpreted that the perception of the skills attained from the Army is heavily impacted by one’s belief in oneself, which in turn, impacts how an officer perceives his or her employability.

<Table 4-17> Simple regression with all the subcomponents of employability

Independent Variables		β Coef	t	p	R-squared	Adj R-squared
Army Related	Commitment to the Army	-0.063	-0.490	0.626	0.292	0.245
	Perception of the Army Experience	0.184	1.310	0.194		
	Skills Attained from the Army	0.173	1.230	0.225		
Internal	Self-Belief	0.635	3.740	0.000***		
Constant		0.284	0.380	0.380		

2) Multiple Regression Analyses, with Individual Characteristics.

In addition to the four factors of employability, variables that relate to individual characteristics were examined together as control variables. A multiple regression was run with control variables such as military branch, time left until discharge, age, marital status, university major, previous work experience and household income. The results of the regression is shown below (Table 4-18).

The explanatory power of this model came out to be relatively high as it had an R-squared value of 0.449 and an adjusted R-squared value of 0.216. Just as it was with the multiple regression model with only the factors of employability, the only variable that seemed to be statistically significant in relation to perceived employability was the “self-belief” variable ($p = 0.032$). The self-belief variable showed a coefficient value of 0.537, a slight decrease from its coefficient when only the factors of employability were measured against employability. Hence, it seems that the Self-belief component was not heavily influenced by the demographic control variables. Neither the Commitment from the Army variable nor the Perception of the Army experience variable seem to be heavily impacted by the addition of the demographic variables, although, there were considerable shifts seen within the skills attained from the Army variable.

<Table 4-18> Simple regression of the independent variables with control variables

Independent Variables		β Coef	t	p	R-squared	Adj R-squared
Army Related	Commitment to the Army	-0.0968664	-0.57	0.571	0.449	0.216
	Perception of the Army Experience	0.1215239	0.68	0.502		
	Skills Attained from the Army	0.0251643	0.12	0.908		
Internal	Self-Belief	0.5370397	2.21	0.032*		
Demographic variables	Army Branch (combat as dummy)					
	Technical	0.5152918	0.48	0.633		
	Professional	-1.82471	-1.97	0.056		
	Other	0.1739795	0.27	0.787		
	Time left until discharge	-0.0648797	-0.97	0.336		
	Age	-0.6442859	-1.81	0.077		
	Marital Status	0.4238425	0.88	0.384		
	Level of Education (Uni in Korea as Dummy)					
	Overseas University Degree	0.2519705	0.95	0.347		
	Current Master's Student	-0.0424688	-0.07	0.941		
	Master's Degree	0.9460432	1.25	0.218		
	Major (Humanities as dummy)					
	Social Science	-0.1131819	-0.31	0.755		
	Natural Science	-0.1856414	-0.29	0.776		
	Education	0.5551616	0.44	0.665		
	Other	-0.3305424	-0.62	0.539		
	Previous work experience	0.3018901	0.91	0.369		
	Monthly household income	-0.0429381	-0.31	0.754		
Constant		2.029723	1.13	0.265		

Whilst with only the sub-component factors present, the p value for ‘skills attained from the Army’ were at 0.225 with a coefficient of 0.173; however, with the addition of the demographic variables the p value increased to 0.908 and the

coefficient subsequently reduced down to 0.025. This same variable showed statistically significant p value when placed in a multiple regression model with just the army related variables. Thus, as each addition of employability factors and control variables continuously pushed this variable away from the significant range, it can be understood that the previous statistically significant relationship between employability and skills attained from the army may have had been a spurious relationship. A Pearson correlation test upon the Skills attained from the Army and the demographic variables showed a moderate correlation relationship with age ($r = -0.3738$, $p = 0.0022$), major ($r = 0.3201$, $p = 0.0093$) and previous work experience ($r = 0.3830$, $p = 0.0016$).

Thus, the same multiple regression was run, except this time, the 'skills attained from the Army' variable taken out of the model. This led to changes to the p value of two demographic variables, pushing the value down to the statistically significant range. No major changes were seen in other variables.

<Table 4-19> Variables that have a statistically significant relationship with the dependent variable when 'Skills attained from the army' variable is taken out

Independent Variables		β Coef	t	p	R-squared	Adj R-squared
Internal	Self-Belief	0.5370397	2.21	0.03*	0.448	0.2324
Demographic Variables	Army Branch (combat as dummy)					
	Technical	0.5152918	0.48	0.633		
	Professional	-1.82471	-1.97	0.05*		
	Other	0.1739795	0.27	0.771		
	Age	-0.6442859	-1.81	0.032*		
Constant		2.097	1.24	0.22		

Demographic variables relating to the branch an Army an officer is affiliated with, and their age had a statistically significant relationship with employability. Firstly, with age, the negative coefficient of -0.644 suggests, as aforementioned, the perception that younger officers hold a more favorable view of their own perceived employability.

Secondly, an additional information we were able to gain from this model is the effect of army branch upon employability. As army branches are categorical variables, when running the regression analysis, the most common branch of combat was placed as the dummy. Interestingly, Officers who are within the professional branch of the army (doctors, dentists, chaplains etc) must have replied more modestly than officers of the combat branch for their negative coefficient of -1.824

suggests that employability scores were lower within this branch. However, with only one respondent being part of the Professional branch, extrapolating too much meaning out of this relationship could, in itself, be a dangerous overstatement.

4.2.4 Relationship between Time and Perceived Self Employability

1) Weekly Discount Rate and Employability

A simple regression between perceived employability and weekly discount rate showed a model with an R-squared value of 0.046, p value equivalent to the correlation and a coefficient of 12.63. Thus, the model suggested that with every unit of increase in perceived employability, there was also an increase in the subjective discount rate; meaning, as perceived employability increased, so too did an officer's valuation of their present time.

To account for the affects of the control variables, the demographic variables were placed in a multiple regression model alongside perceived employability (Appendix G). The result found a reduction in the p value of perceived employability by 0.072, pushing the p value down to a statistically significant range at alpha levels of 0.05. Moreover, the coefficient of the perceived employability increased to 24.63. None of the control variables had any statistically significant relationship with the weekly subjective discount rate.

2) Monthly Discount Rate and Employability

A regression analysis showed an r-squared value of 0.06 and a statistically significant beta coefficient of 1.466. Thus, the model again suggests that each unit of increase in employability led to an increase of the subjective discount rate by 1.467, making the present seem more valuable than a future point in time.

Again, to account for the control variables, a multiple regression was run (Appendix G). Similarly, the demographic variables, although had no statistically significant relationship of their own with the monthly discount rate, still impacted the p value and coefficient of perceived employability, albeit to a much smaller degree than with the weekly discount rate. Perceived employability's p value was reduced to 0.01 and the coefficient was increased by approximately 2.4, making the

relationship between perceived employability and the discount rate stronger.

3) Yearly Discount Rate and Employability

A regression showed that the r-squared of the model was 0.0633, and that the statistically significant variable had a coefficient of 3.771. Thus, compared to the monthly rate, the yearly discount rate was affected by a greater degree. To put it another way, with each increase in perceived employability, the magnitude of how much the present is valued increased at a larger degree than the monthly rate.

Finally, the control variables were considered (Appendix G). The same results as the weekly subjective discount rates and monthly subjective discount rates followed. The addition of the demographic variables reduced the p value of perceived employability to 0.011 whilst increasing the coefficient to 6.428. None of the demographic variables had any statistically significant relationship with the yearly subjective discount rate.

4.2.5 Relationship between WTA amount and Employability

1) WTA and Perceived Employability, and Demographic Characteristics.

Perceived employability was next used as the independent variable to examine the relationship with the willingness to accept amount. A correlation analysis was first conducted. The relationship was that of a negative ‘negligible’ association with a statistically insignificant p value of 0.7635.

With perceived employability showing no statistically significant correlation, a multiple regression analyses was further conducted with the inclusion of individual characteristics, including the Branch of Army, Age, Marital Status, Age, Level of Education, Major, Previous Work experience and Monthly household income. The results of the multiple regression are shown below.

The R-squared of this model came out to 0.3045 with an adjusted r-squared value of 0.0727. The demographic control variables seemed to have very little effect on the independent variable, perceived employability’s relationship with the willingness to accept amount, thus control variables do not affect the outcome the

model itself. It is worthy to note that there were demographic variables that indicated statistical significance with the willingness to accept amount at $p < 0.05$, namely the army branch and level of education. In terms of level of education, the answer choice of “graduated from university in Korea” was chosen as the dummy. Of the remaining 3 categories of education, officers who responded that they were currently pursuing a masters’ degree showed statistical significance at $P < 0.05$, and had a coefficient value of -197.1. Moreover, officers in the other category of the army branch were also shown to have a statistically significant relationship with the dependent variable, as it has a p value of 0.015 and a coefficient of -265.09.

<Table 4-20> Multiple regression of the independent variables, control variables on Willingness to Accept

		β Coef	t	p	R-squared	Adj R-squared
Independent Variables	Employability	-13.04443	-0.5	0.622	0.305	0.073
	Months Left until Discharge	-3.801613	-0.31	0.756		
Demographic variables	Army Branch (combat as dummy)					
	Technical	65.8759	0.35	0.731		
	Professional	-181.5819	-1.04	0.306		
	Other	-265.0889	-2.52	0.015		
	Age	-104.3955	-1.8	0.078		
	Marital Status	39.08626	0.45	0.655		
	Level of Education (U in Korea as Dummy)					
	Overseas University Degree	-29.59998	-0.64	0.525		
	Current Master's Student	-197.0817	-2.08	0.043*		
	Master's Degree	-93.44713	-0.71	0.48		
	Major (Humanities as dummy)					
	Social Science	9.424941	0.19	0.851		
	Natural Science	56.84287	0.49	0.63		
	Education	168.3055	0.83	0.413		
	Other	-5.798114	-0.06	0.952		
	Previous work experience	-87.63785	-1.56	0.124		
	Monthly household income	-34.75363	-1.42	0.161		
	Constant	672.6118	2.86	0.006		

4.2.6 Relationship between the value of Time and Time spent in the Army

1) Weekly Discount Rate and Time left until Discharge

The mean of the responses to the weekly discount rate grouped by time left until discharge is shown in the table below. Interestingly, officers who had between 11 to 7 months left until their discharge responded with the highest mean discount rate. This trend held true for Monthly and Yearly Discount Rates as well. (Appendix H) whilst officers who are at the beginning of their career (36-32 months) anchored the table with the lowest means for weekly and monthly rates, although, for the yearly

discount rate, officers who had less than a month of service left responded with the lowest mean.

A Pearson correlation analysis was undertaken between the three time frames of the discount rates and the time left until discharged. Results of the correlation test between the weekly discount rate and the time left showed r values of 0.037 at p value of 0.763. Correlation between the time left until discharge and the monthly discount rate showed r values of 0.0503 and p values of 0.69. Finally the correlation analysis for yearly discount rate showed a negligible association with r values of 0.0275 and a p value at 0.83. All three exhibited statistically insignificant relationships.

2) WTA and Time left until Discharge

Of the total respondents, 50.77% replied to answering positively to extending their service within the army for an increase in their salaries. In terms of proportions, officers who have 6-2 months of service left, and 21-17 months of service left responded most favorably to extending their service, whilst 50% of officers who have just started their careers as Army officers were favorable, followed by 43% of officers with 11-7 months left of service. Officers with 26-22 months of service left and less than 1 month of service left both had positive response rates of 40% and finally, officers who are more or less in the middle of their 3 year service period had the lowest positive response rate at 33%.

<Table 4-21> Willingness to extend service by months left until discharge

Months left until Discharge	No	Yes	Proportion	Frequency
36-32	2	2	50%	4
26-22	3	2	40%	5
21-17	3	6	67%	9
16-12	8	4	33%	12
11-7	4	3	43%	7
6-2	6	12	67%	18
<1	6	4	40%	10
Total	32	33	51%	65

Grouped by time left until discharge, the price point at which each officer answered 'Yes' to extending their service is shown below. Again, 0 KRW denotes a

complete unwillingness to extend their service. Officers who agreed to a value of 2,100,000 denote those of whom who answered yes to the very first willingness to accept question, with an increase to their wage at 100,000. The wage increase that received the most answers was an increase of 500,000, which parallels a respondent choosing yes after having foregone an increase of 100,000 and 200,000. The highest response received was 6,000,000, personally written in by an officer who is in the middle of his or her three year career. Interestingly, every officer who responded ‘Yes’ but also had less than 1 month left in their service responded positively to an increase in their monthly wage by an amount of 500,000 won.

To examine a clearer relationship between a Time Left until Discharge and the willingness to accept amount, a Pearson correlation test was conducted. The correlation showed a negative negligible association with an r value of -0.06 and a statistically insignificant p value of 0.66.

<Table 4-22> Amount officers are willing to accept service extension by months left until discharge

Months left until Discharge	₩ -	₩ 2,100,000	₩ 2,410,000	₩ 2,500,000	₩ 2,750,000	₩ 3,000,000
36-32	2	1	0	0	0	0
26-22	3	0	0	0	0	0
21-17	3	0	0	5	0	1
16-12	8	2	0	1	0	0
11-7	4	0	0	2	0	0
6-2	6	1	1	7	1	1
<1	6	0	0	4	0	0
Total	32	4	1	19	1	2

Months left until Discharge	₩ 3,330,000	₩ 3,500,000	₩ 4,000,000	₩ 5,000,000	₩ 6,000,000
36-32	0	1	0	0	0
26-22	0	0	0	2	0
21-17	0	0	0	0	0
16-12	0	0	0	0	1
11-7	1	0	0	0	0
6-2	0	0	1	0	0
<1	0	0	0	0	0
Total	1	1	1	2	1

Table above shows the results of the multiple regression analyses conducted with ‘time left until discharge’ as the independent variable, alongside ‘perceived employability’ and the demographic variables. With a coefficient of -3.802 and p values of 0.756, there was no statistically significant relationship between the independent variables and the willingness to accept amount. The control variables had little impact upon the two independent variables.

4.2.7 Summary of the Results for Short-term conscription Officers

After having conducted a PCA analyses on the survey results, 6 components were found with eigen values of 1 and above. These components were then put through a varimax rotation to find grouping of correlation values higher than 0.3, and once a Cronbach alpha test was conducted upon the survey questions within each component, only 4 components were seen as valid enough to be considered as viable independent variables to test against one's perceived employability. The four components were Commitment to the Army, Perception of the Army Experience, Skills attained from the Army and Self-belief. However, after a series of regression analyses, it was found that there was a spurious relationship between skills attained from the Army and perceived employment as it was heavily influenced by other variables. Thus, the Skills attained from the Army factor was taken out of the final multiple regression model; whence only the Self-belief component shared a statistical relationship with perceived employability.

With the relationship between time and perceived employability, although no statistically significant relationship was found between perceived employability and the willingness to accept, perceived employability seemed to have a positive relationship with the subjective discount rates.

Following such train of thought, officers who edge close to towards the frontlines of finding new employment was suspected of having greater valuation of time, prior to the surveys being conducted. However, time left until discharge proved to have no statistical relationship with any of the three discount rates nor the willingness to accept amount. Although, it is worthy to note that for all three of the discount rates, officers who had little less than a year left of their service considered their present time to be most valuable.

<Table 5-1> The Results of the Hypotheses

Hypotheses	Rejection of the null	
	Enlisted	Officer
<i>H1: Perception of the Army will have an effect on self-perceived employability of enlisted soldiers and short-term conscription officers.</i>	×	×
<i>H2: Self-Belief will have an effect on the self-perceived employability of enlisted soldiers</i>	×	✓
<i>H3: Skills attained from the army will have an effect on the self-perceived employability of enlisted soldiers and short-term conscription officers.</i>	×	×
<i>H4: Perception of the state of the job market will have an effect on the self-perceived employability of enlisted soldiers and short-term conscription officers.</i>	✓	×
<i>H5: Commitment to the Army will have an effect on the self-perceived employability of enlisted soldiers and short-term conscription officers.</i>	✓	×
<i>H6: Ambition will have an effect on the self-perceived employability of enlisted soldiers and short-term conscription officers.</i>	✓	×
<i>H7: Negative perception of one's employability will have a positive impact on one's subjective discount rate</i>	×	×
<i>H8: Negative perception of one's employability will have a positive impact on one's the amount one is willing to accept</i>	×	×
<i>H9: The closer an enlisted soldier is to being discharged, the greater his subjective discount rate will be.</i>	×	N/A
<i>H10: The closer an enlisted soldier is to being discharged, the greater his willingness to accept amount will be.</i>	×	N/A
<i>H11: The closer a short-term conscription officer is to being discharged, the greater his/her subjective discount rate will be.</i>	N/A	×
<i>H12: The closer a short-term conscription officer is to being discharged, the greater his/her willingness to accept amount will be.</i>	N/A	×

*N/A= not applicable

Chapter 5. Conclusion

5.1 Summary

This research attempted to answer 3 main questions. ① whether perceived employability effects one's valuation of time ② taking into account the unique atmosphere of the army, what subcomponents of employability effects a soldier's perceived employability ③ how the time spent within the army, the progression from a newly recruit/commissioned soldier to a soldier standing at the brink of civilian life, effects one's valuation of time.

The relationship between time and employability, in regards to military service may seem disconnected but these key words are often what is most discussed between enlisted soldiers and officers in the Mess Halls. First enlisted soldiers and officers alike, those who wear the uniform mainly due to legal duties without any future career aspirations in the armed forces, tend to look at their conscription period through the lens of opportunity cost of time – what I can be doing in my civilian life, if I wasn't stuck in the barracks; how I can be spending my time in school as opposed to shoveling snow in winter; what diverse array of qualification exams and skill sets I can be perfecting instead of being stuck in live-maneuver training. Hence, a soldier's valuation of their experience, and their service period seems to come down to how well they believe that they spent their time in conjunction to activities that they believe are productive. The most commonly shared and empathized productive use of time between Korean youths of the age group of these soldiers, is in the effort placed in pursuit of employment opportunities. Thus in reality, the litmus test for productive army experience comes down to how much of their time in the army has positively affected their employability stock.

Second, the Army, self-aware of such views of its soldiers, has begun leveraging the concept of employability as an attempt to reinvent the negative image of conscription and consequently the army, away from the preconceived notion of 'time wasted' to the newly invented 'Army as a steppingstone to better employment opportunities' image. The Army's attempt to reinvent its image has come as an effort to strengthen the sense of confidence within the people of the Army, which is

believed to have deteriorated due to the negative feedback shared by discharged and retired soldiers. With Army's efforts to become an institution that nurtures highly skilled, employable youths, already well underway, this research aimed to test if the sub-conditions behind the Army's efforts to cater to its soldiers has a solid basis.

The first part of the research focused upon the subcomponents of perceived employability, especially with regards to the effects of the army experience. The results found components that actually had positive impacts upon perceived employability. For the enlisted, they were 'ambition', 'perceived state of the job market', and 'commitment to the army'. Ambitious soldiers who had optimistic perceptions of the current job/recruitment landscape were naturally optimistic about their own perceived employability. Soldiers who exhibited commitment to the values of the army, and had a sense of pride in wearing the uniform also tended to respond more confidently to perceived employability.

The results of the study on short-term commissioned officers were quite different to that of the enlisted soldiers. In understanding which subcomponents of perceived employability actually impacted perceived employability, only the internal factor of self-belief was found to have any statistical significance. This seems to suggest that external components such as the perception on the current state of the job market, and army components such as 'commitment to the army', 'perception of the army', 'skills attained from the army', all had little effect in determining how one viewed their own employability. Considering that short-term conscription officers spend 3 years in uniform, the fact that army related experiences have little statistically significant effect on perceived employability should be a source of grave concern for the Army as an organization especially as it faces continuous declining application rates. To a degree, the result shows that its own workforce doesn't believe that the organization is beneficial to their future. Furthermore, this result is more shocking when considering that for most other nations, serving in the Army as an officer, no matter for how long, is considered an actual career. Hence this result also seems to suggest that short-term conscription officers do not view their 3 years in the army as a career, but rather, nothing more than simply accomplishing their legal duties.

In terms of the enlisted soldiers' valuation of time vis a vis employability, there was a positive relationship between self-perceived employability and enlisted

soldiers' willingness to accept amount. Here, the effects of opportunity cost clearly comes into play. Soldiers who perceive their employability stock to be positive simply are more sensitive to the opportunity cost of time spent in the Army, as they are aware of the possible alternatives that exists for them out in the real world. Furthermore, unlike their peers who responded negatively to perceived employability, the confident soldier must also worry about the possibility of their skillsets, business acumen and general understanding of the zeitgeist of the recruitment world atrophying while serving in uniform. As found by Teachman and Tedrow (2007) and Lee (2003), the training received in the army was shown to have no positive effect upon future career success, leading to substantial economic costs to reinvest in the necessary skillsets to perform highly in the civilian job market. Thus, for soldiers who believe that they are already highly employable, they have more to lose, per se, thus believing time spent on activities that detract from their career aspirations as time wasted, hence valuing their time higher.

Unlike the enlisted men, there were no statistically significant relationship between employability and an officers willingness to accept, however, a relationship between perceived employability and time was met via a positive relationship with the discount rate. For officers, as their perceived employability increased, so too did their subjective discount rate, suggesting that positive employability led to greater valuation of the present as opposed to the future. This result parallels the results found by Lahav et al (2011). Although in Lahav's case, the source of uncertainty for Israeli soldiers' were imminent danger, death and fickle situational changes of war, for the officers who are only serving temporarily in the ROK Army, their source of great uncertainty is in regards to their future especially in light of growing competition. Similar to the enlisted, the training and lessons learned in the army, although may have great personal benefit, does not necessarily have a positive impact on one's employability stock in the eyes of the recruiter. In addition, unlike the enlisted, where the majority would return to some form of education after being discharged, Officers as their minimum qualification is a bachelors degree, is forced to enter into the job market straight away. This is more the case for officers who already believe that they are employable. While soldiers who believe that they lack employability would naturally go into a preparation period, soldiers who believe that

they are ready for recruitment fully immerses oneself into the recruiting arena. Since self-perceived employability is in a way confidence, how one fares in the actual recruitment battle may be vastly different from expectation, thus, opening up great room for uncertainty.

Through the analyses of the effect rank has upon the valuation of time (being closer to discharge and time) for enlisted soldiers, the results showed that the progression through the rank led to a higher valuation of one's willingness to accept amount. This can also be interpreted as, soldiers closer to civilian life tend to place greater value on time. The results resemble the conclusions found in studies regarding time pressure, and imminent change. As Carsten et al (1999) notes, expected changes ahead help people understand time as a limited resource, which in effect has profound effects upon how one view their concept of time. For the majority of the enlisted soldiers, their 18 months in the army would have been in environments vastly alien, with people they have never met, under rules and regulations that, in their civilian life, would seem draconian and restrictive. Progression through such an environment leads to adaptation, and normalization. Then, to finally return to a life without such restrictions, back to normalcy, back to looking directly at the behemoth that is employment preparation, is without a doubt great personal change, and a source of both uncertainty and self-doubt. Thus the effect of impending change of uncertain future situations feed into the higher willingness to accept amount for enlisted soldiers edging closer to discharge.

No statistically significant relationship were found between the progression of an officer through the ranks towards being honorably discharged and neither of the measurements for time valuation. The reasons could vary. One interpretation is that while soldiers live an extremely secluded, closed-from-society life, officers enjoy a greater degree of freedom. Most officers live off base, and as the majority of the officers participating in this research were members of the highest echelons, their bases are also located either in Seoul or in the Greater Seoul Metropolitan Area. Hence, that feeling of discontinuity from their past self and uncertainty about vast changes in their civilian life does not necessarily impact officers as much as they do for the enlisted.

The results indicated that for both enlisted soldiers and officers, perceived

employability was found to have positive effect time. This begs the question, wouldn't those with lower perception of self-employability be more worried about their future uncertainty, and hence, value their time more? Opportunity cost and future uncertainty have been found as the two underlying components that link employability to valuation of time. In that sense, an explanation of why that wasn't the case could be because of the concept of 'recruitment preparation period.' Similar to students delaying graduation, people actively take time off of their lives to prepare themselves for the recruitment race. It is only when one feels like they have the minimum requirements to be competitive, do they actually start their recruitment process. Hence, for those who feel that they are currently ill prepared for recruitment, there is less uncertainty about their future, for they will almost but certainly enter into the process of recruitment preparation. Hence with less uncertainty about their next step in life, its impact upon one's valuation of time is marginal. In addition, the concept of opportunity cost seems to hit hardest only when a person begins to actively seek employment. Thus, in another words It is only when people actively partake in the recruitment process do they begin to truly feel the weight of complete uncertainty and measure opportunity cost, which in essence begins to effect one's valuation of time.

5.2 Policy Implications

A big take away from this research was how vastly different the responses from the enlisted soldiers and the officers were. Even though both enlisted soldiers and short-term conscription officers don the uniform because they must, their sheer differences in responses indicate not only the discrete composition of the enlisted ranks and the field officer ranks, but also the differences in the general experiences and perceptions of the army. As such, when looking at policies targeting "conscription", it is paramount that there are distinctions in the details between the policies and programs directed towards the enlisted, and towards the officers.

Over the last 2 years, the Army has been pushing to change their image, to an institution that can offer on the job training and become a stepping stone that can lead to better employment. In 2018, the Army instituted a program called "Youth

Dream, Army Dream”, as a way to “shift the image of compulsory service away from it being a waste of life, to it being a place to make ones dreams come true.”⁸ Thus the basis of this idea was that the Army wanted to make the compulsory service period of the soldiers as fruitful as possible, hopefully allowing the soldiers to live a double tracked life of not only protecting the nation, but also using the time to prepare for their dreams and their future. The “dream” aspect of the policy’s name is an acronym that highlight the crux of the policy - “Developing competence, Raising job opportunities, Elevating Character and leadership, Advancing health and Materializing noble values.” Through this policy, the Army offers a wide array of programs, namely creating employment/startup study groups, hosting job fairs, creation of career advisor roles within various brigade and divisions, interview preparation workshops, and even startup/hackathon competition hosted by the Army in partnership with private companies, all in an attempt to strengthen and develop the enlisted soldiers’ employability stock.

While the Youth Dream, Army Dream program is still nascent, and only experimentally instituted in a select number of divisions and brigades, the program seems to have great potential in achieving its goals, when seen in conjunction with the results of this paper. The Army hopes to better its image by implanting within the minds of the soldiers that time spent in uniform will be well spent, now that the Army can provide them with the tools to succeed in post-military life. Already, we have seen through our research that increased employability does positively impact valuation of time. This research postulated that soldiers who already regard their employability positively, are more acutely aware of the opportunity cost of being in the Army, and further, may worry about their skill sets atrophying thus leading to a higher valuation of time. As this program doesn’t simply offer ways to accrue greater *specs* per se, but also offers guidance support, mentorships and lecture series from prominent figures, to better assist soldiers in how to better use their remaining time to even further strengthen their employability stock, it gives soldiers more opportunities to make use of their time efficiently and effectively. In addition, for soldiers with low perceived employability, this program offers ways to better

⁸ Quoted from Major General Kang Chang Koo, Deputy Chief of Staff of Personnel during a press conference, News1Korea (2018)

strengthen their employability stock, giving them a head start in their recruitment preparation process. Thus, in a sense, for soldier of positive perceived employability, this program placates their worries about losing their recruitment edge. Whilst, for soldiers with low perceived employability, the program's aid in strengthening their stock means that soldiers would now need to take less time off in their post-army life to separately prepare for the recruitment process.

Moreover, at the basis of this program is an effort to align army values of character development, leadership and team work into concepts of employability. A key subcomponent that positively affected an enlisted soldiers valuation of their perceived employability was in fact commitment to the army, which encompasses elements such as dedication to army values. Thus, coating career related programs with elements to strengthen a soldiers' commitment to the army may actually further elevate his sense of perceived employability. In addition, other career-related services such as hosting job fairs, hiring specific career advisors and interview preparation workshops also ties into the 'state of the job market' subcategory, which was also found to have positive impact upon perceived employability.

All in all, through the Youth Dream, Army Dream program, the Army is offering various tools to continuously increase the employability stock of its soldiers. As stronger employability has been shown to lead to greater valuation of time, and in effect, shine light upon the opportunity cost of time spent in the army, the program may seem to have a paradoxical relationship to its goals. While, an increased employability may make people think that time used to chase their dreams are more valuable, if the Army and this program becomes the architect that can draw the blueprint for the soldiers to make their goals come true, then it in itself is mission completed. As aforementioned, an increased willingness to accept amount may also signify a soldier's own perception of self-worth. If this program is truly able to positively impact the self-worth of its soldiers, then the Army's ultimate goal of changing its image may be successfully accomplished.

Currently the Youth Dream, Army Dream program is open to all soldiers within the divisions and brigades that offer it. As the Army looks to expand the program so that it becomes nation-wide, an interesting modification to the program that they could consider could be to offer different programs to different ranks. This

research also showed that those closer to being discharged valued their time more. Hence, if the Army were able to take initiative in knowing this fact and streamline some of its programs to specifically target soldiers who are getting closer to being discharged, then the Army could capitalize on the soldiers' already established sentiment by filling their precious time with employment related programs that they actually care about. However, this does not mean restricting participation of lower rank enlisted soldiers to the program, for that can lead to problems of discrimination by rank, but rather simply offering more to the higher ranking enlisted soldiers.

No such programs exist for short-term conscription officers. While the ROK Army is aware of the dwindling recruitment rates of its short-term officers, no programs to make their time in uniform more valuable have been put forth. This research found that perceived employability and the valuation of an officer's present time has a positive effect. Hence, policies that could strengthen the perceived employability of an officer can truly have an optimistic effect on how these officers value their current situation as a soldier. This also builds upon the previously established research, conducted within the Army, which concluded that many short-term officers actually enlist because they believed that the army experience could further strengthen their employability stock.

Of course, there actually exists a plethora of employment related programs and opportunities for officers such as national licensing exam education, employment support programs, career advice centers and even career workshops. However, most of these programs are only open to those who have served in the army for longer than 5 years. Hence, these programs specifically exclude short-term conscription officers. This exclusion may be the reason why, the "army" related subcomponents of perceived employability had practically no effect on the actual perceived employability. It may not simply be that the short-term conscription officers internally do not consider the army experience pertinent to perceived employability, but rather, since no effort is being made by the organization as a whole to help link the army experience to employability, they may not have been able consider the two factors together. This could especially be the case for officers whose main mission is very army-centric and translation of such expertise into the civilian fields may not be as intuitive.

With already declining interest in short-term conscription officer program, which is exacerbated by the fact that service period for enlisted soldiers have shortened to be exactly half that of the service period of the short term officers, in addition to the various improvements to enlisted soldiers service environment and career support programs, the Army and the Ministry of Defense must begin enacting officer-specific programs to entice interest in university graduates to join the Army. With employability already being an established motivating factor for university graduates to consider joining the army as a short-term conscription officer, the Army should simply exploit that, to find ways to conclusively show that being in the Army as an officer does enhance one's employability stock post discharge. A simple way to begin would be to expand the already offered employment-related support and programs to include short-term conscription officers who are in their final year of service. This research found that for all three time frames of the subjective discount rate, officers who had 11-7 months left in their service valued their present the most. By opening up employment related programs to officers in their final year, the Army would not only be able to maximize the effect of time value felt by the officers, but also would be able to minimize any dispersions in mission concentration for officers still in their first and second year of service. For the future of the short-term conscription officers, to paraphrase President John F. Kennedy's famous maxim, maybe it is time for the Army to 'ask not what its officers can do for them, but what the Army can do for their officers.'

5.3 Constraints of the research.

There exists many constraints on this research. As mentioned above, the greatest constraint was the total number of respondents. With only 252 respondents, it was difficult to gain a broad understanding of the relationships between the variables. Moreover, the great majority of the respondents for the enlisted ranks came from a single battalion, situated along the northern frontier. Thus, these soldiers would have had a relatively common army experience. Hence, its again difficult standardize the responses to represent the entire cohort of the enlisted soldiers of the army. The same goes for the short-term conscription officers. Where, in reality, the vast majority of these officers are situated in the lowest echelons, scattered around

the entire nation, this research focused on officers who are affiliated with the highest echelons. Finally, as the main focus of the survey and the paper was in regards to perception, the current zeitgeist and general societal atmosphere cannot be ignored. The effect of COVID-19 has had an enormous impact not only in the lives of average citizens, but also in the lives of soldiers as well. At the time when the survey was distributed, and filled out, strict travel restrictions upon soldiers for the sake of precaution were in place. Such environmental factors could have also contributed to the responses. In addition, the effect of the virus upon the economy, and the job market is something that was not lost on the soldiers, especially as everyone in the army regardless of rank, now have access to the news via their phones. The special circumstances of the virus situation would have most certainly impacted how the answers of the survey were responded.

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APPENDIX A

취업성과 시간의 가치 분석을 위한 설문

안녕하십니까?

국가방위에 맡은바 소임을 다하며 와중에도 귀중한 시간을 내주셔서 감사합니다.

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본 조사는 개인정보 보호법 [시행 '17. 07. 26 법률 제 14839호]과 통계법[시행 '17. 07. 26. 법률 제 14839호] 제 5장 33조 (비밀의 보호)에 의거하여 무기명으로 통계처리하여 학문적인 연구 이외에 다른 목적으로 사용되니 않을 것과 응답 내용은 철저히 비밀이 보장됨을 약속드립니다.

본 조사에서 연구자가 가정하는 시나리오들은 모두 가상임을 다시 한 번 강조합니다. 이는 현재 군 정책과 전혀 상관이 없으며 연구를 위해 조성된 가상의 조건일 뿐입니다.

설문이 길더라도 솔직하고 성의 있는 답변을 부탁드립니다. 여러분의 답변이 군의 발전에 도움이 될 수 있는 귀중한 자료가 될 수 있습니다.

다시 한 번 설문에 응해주셔서 감사합니다.

서울대학교 행정대학원 정책학 석사과정
유세연

[용사용]

[1-10] 인적사항에 관한 질문입니다.

1. 귀하의 계급은?

① 훈련병 ② 이병 ③ 일병 ④ 상병 ⑤ 병장

2. 귀하의 보직은

① 전투병 ② 통신병 ③ 수송병 ④ 행정병 ⑤ 기타

3. 귀하는 전역일 까지 몇 개월 남았습니까?

① 18 ~ 16 개월 ② 15 ~ 13 개월 ③ 12 개월 ~ 10 개월 ④ 9 ~ 7 개월 ⑤ 6 ~ 4 개월
⑥ 3 ~ 1 개월 ⑦ 1 개월 미만

4. 귀하의 연령은 (만나이)

① 20세 이하 ② 20-25세 ③ 26-30세 ④ 30세 이상

5. 귀하의 결혼여부는?

① 미혼 ② 기혼

6. 귀하의 자녀는 몇 명입니까?

① 없음 ② 1명 ③ 2명 ④ 3명 이상

7. 귀하의 최종학력은?

① 고졸이하 ② 2년제 대학교 재학중 ③ 4년제 대학교 재학중 ④ 대학 졸업 ⑤ 대학원 이상 재학 중
(석박사)

8. 귀하의 전공은

① 인문 ② 사회과학 ③ 공학 ④ 이학 ⑤ 교육계 ⑥ 의학 ⑦ 기타

9. 귀하의 노동 경험이 있으십니까 (아르바이트 포함)?

① 없다 ② 있다

10. 귀하의 가정의 월평균 소득은?

① 100만원 미만 ② 100~300만원 ③ 301~500만원 ④ 501~700 만원 ⑤ 701만원 이상

단기복부장교용

[1-14] 인적사항에 관한 질문입니다 [장교용]

1. 임관구분이 어떻게 되십니까?

- ① 육군사관학교 ② 육군3사관학교 ③ 학군ROTC ④ 학사장교 ⑤ 단기간부사관 ⑥ 전문사관 ⑦ 기타

2. 귀하의 임관 계급은?

- ① 소위 ② 중위 ③ 대위

3. 귀하의 현재 계급은?

- ① 소위 ② 중위 ③ 대위

4. 복무구분이 어떻게 되십니까? (2년 이상 복무연장 신청자면 ②번을 선택하시면 됩니다)

- ① 단기복무장교 ② 중장기복무장교

5. 귀하의 병과는?

- ① 전투 (보병, 기갑, 포병, 방공, 장보, 공병, 정보통신) ② 기술 (화생방, 병기, 병참, 수송) ③ 행정 (인사, 군사경찰, 재정, 공보정훈, 군악) ④ 특수병과 (군의, 치의, 수의, 의정, 간호, 법무, 군종) ⑤ 기타

6. 귀하는 전역일 까지 몇 개월 남았습니까?

- ① 36 ~ 32 개월 ② 31 ~ 27 개월 ③ 26 ~ 22 개월 ④ 21 ~ 17 개월 ⑤ 16 ~ 12 개월 ⑥ 11 개월 ~ 7 개월 ⑦ 6 ~ 2 개월 ⑧ 1 ~ 1개월 미만

7. 귀하의 연령은 (만나이)

- ① 20-25세 ② 26-30세 ③ 31-35세 ④ 35세 이상

8. 귀하의 결혼여부는?

- ① 미혼 ② 기혼

9. 귀하의 자녀는 몇 명입니까?

- ① 없음 ② 1명 ③ 2명 ④ 3명 이상

10. 귀하의 최종학력은?

- ① 국내대학 졸업 ② 국외대학 졸업 ③ 대학원 석사 재학중 ④ 대학원 석사 졸업
⑤ 대학원 박사 재학 중 ⑥ 대학원 박사 졸업

11. 귀하의 전공은

- ① 인문 ② 사회과학 ③ 공학 ④ 이학 ⑤ 교육계 ⑥ 의학 ⑦ 기타

12. 귀하의 노동 경험이 있으십니까 (아르바이트 포함)?

- ① 없다 ② 있다

13. 귀하의 가정의 월평균 소득은?

- ① 100만원 미만 ② 100~300만원 ③ 301~500만원 ④ 501~700 만원 ⑤ 701만원 이상

14. 귀하의 성별은?

- ① 남자 ② 여자

[1-4] 시간에 대한 가치에 대한 설문입니다.

다음의 가상 시나리오를 읽고, 해당하는 보기를 표기하여 주십시오

2020년 기준

	1호봉	2호봉	3호봉	4호봉
중위	₩ 1,871,200.00	₩ 1,977,400.00	₩ 2,083,600.00	₩ 2,189,800.00
상승폭		₩ 106,200.00	₩ 106,200.00	₩ 106,200.00
상승률		5.68%	5.4%	5.1%

	1호봉	2호봉	3호봉	4호봉
대위	₩ 2,411,900	₩ 2,538,600	₩ 2,665,300	₩ 2,792,000
상승폭		₩ 126,700	₩ 126,700	₩ 126,700
상승률		5.3%	5.0%	4.8%

1. 여러분은 단기복무 장교입니다. 의무복무 기간을 마치고 추가 6개월, 단기간 동안 연장 복무를 할 기회가 생겼습니다. 담당 임무나 계급에 변화는 없지만 보다 인상 된 급여를 줄 시, 연장기간 동안 월 급여가 전역할 때 계급의 호봉 월급보다 10만원 더 높으면 지원하시겠습니까?

- ① 지원한다 ⇒ 설문 5번으로 ② 안한다 ⇒ 다음 질문

2. 만약 연장복무 급여가 전역하는 계급의 호봉 월급보다 20만원 상승한다면 지원하겠습니까?

- ① 지원한다 ⇒ 설문 5번으로 ② 안한다 ⇒ 다음 질문

3. 만약 연장복무 급여가 전역하는 계급의 호봉 월급보다 50만원 상승한다면 지원하겠습니까?

- ① 지원한다 ⇒ 설문 5번으로 ② 안한다 ⇒ 다음 질문

4. 본인은 얼마의 급여가 책정되더라도 단기간 복무연장 지원의사가 전혀 없으십니까?

- ① 지원의사가 있다 (어느정도가 적당 급여인지 작성:) ② 전혀 없다

[5-7] 주관적 시간 할인에 대한 설문입니다.

오늘 귀하의 은행 계좌에 500만원이 입금될 것입니다. 그러나 우리는 당신에게 이 돈을 입금하는 것을 연기하고 (1주, 3달, 1년) 후에 또 다른 금액을 받을 수 있는 선택권을 제공하고 있습니다. 앞으로 (1주, 3달, 1년) 후로 입금을 연기하기 위해 기꺼이 수락할 최소 금액은 얼마입니까?

5. 오늘 500만원 대신 1주 후에 _____을 (금액) 받을 의향이 있다.

6. 오늘 500만원 대신 3달 후에 _____을 (금액) 받을 의향이 있다.

7. 오늘 500만원 대신 1년 후에 _____을 (금액) 받을 의향이 있다.

개인의 취업가능성 진단

문항을 잘 읽으시고 현재 본인의 생각과 일치하는 번호에 V표로 응답하여 주시기 바랍니다.

1. 내 보직/특기에 있어 모두로부터 내 능력을 높게 평가 받는다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

2. 군 복무를 성실히 이행하는 것은 나에게 중요하다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

3. 고용인들은 군인/군경험자들을 좋은 인재로 생각한다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

4. 나의 군경험은 취업에 도움이 될 것이라고 생각한다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

5. 고용주들은 군생활을 통해 터득한 다양한 역량들(리더십, 팀워크, 책임감, 소통, 보고 능력, 운전, 의전 등)을 높게 평가한다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

6. 육군은 사회생활에 필요한 역량들은 잘 배양하기로 알려진 조직이다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

7. 나는 육군에서 터득한 역량들이 소중하고 유용하다고 느낀다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

8. 육군에서 터득한 역량들은 타인들이 높게 평가한다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

9. 내가 목표로 하는 직업에 종사하는 사람들은 노동 시장에서 높은 수요를 가지고 있다.

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

10. 지금까지의 축적해온 나의 경험들과 기량들은 내가 희망하는 직장에서 긍정적으로 평가 할 것이다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

11. 현재 취업시장에서는 새로운 인재에 대한 요구가 강하다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

12. 현재 취업시장에는 일자리가 많다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

13. 내가 희망하는 일자리에 대한 정보를 쉽게 찾아볼 방법이 있다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

14. 내가 현재 가지고 있는 능력과 기량은 고용자들이 찾고 있는 것과 일치한다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

15. 나는 일반적으로 취업과 면접에 성공할 자신이 있다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

16. 내 기술과 경험이 상당한 관련성이 있는 한 어떤 직업도 얻을 수 있을 것 같다.

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

17. 육군의 일원으로 자부심을 느낀다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

18 육군의 가치관과 나의 가치관이 일치한다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

19 나는 다른 사람들에게 내가 육군 장병이라고 말하는 것이 자랑스럽다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

20 타군/대체 복무 대신 육군에 지원해서 기쁘다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

21 나는 육군과 육군의 미래에 대해 관심이 있다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

22. 나는 내가 정말 좋아하는 일을 할 수 있는 위치에 있고 싶다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

23. 나는 내가 인생에서 성취하고 싶은 것에 대한 분명한 목표를 가지고 있다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

24. 나는 야망이 크다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

25. 나는 빨리 취업해서 내 경력을 쌓는 것이 시급하다고 느낀다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

26. 내가 미래에 무엇을 하는지는 중요하지 않다

전혀 아니다	다소 아니다	보통이다	다소 그렇다	매우 그렇다
①	②	③	④	⑤

APPENDIX B

<Appendix B> Individual attributes of enlisted soldiers

	Group	n	Perentage
Rank	Private	16	8.51
	PFC	92	48.94
	Corporal	56	29.79
	Sergeant	24	12.77
Specialty	Combat	150	79.79
	Communication	9	4.79
	Transportation	12	6.38
	Administration	7	3.72
	Other	10	5.32
Age	< 20	21	11.17
	20 - 25	163	86.7
	26 - 30	3	1.6
	31 - 35	1	0.53
Education	Less than HS	38	20.21
	2Year College	38	20.21
	4 Year University	103	54.79
	University Grad	9	4.79
Major	Arts	36	19.15
	Social Science	39	20.74
	Engineering	47	25
	Science	8	4.26
	Education	2	1.06
	Other	56	29.79
Work Experience	No	37	19.68
	Yes	151	80.32
Marital Status	No	188	100
	Yes	0	0
Children	No	188	100
	Yes	0	0

Appendix C

<Appendix C> PCA analysis of the factors of employability

Principal components/correlation			Number of obs	188
			Number of comp.	5
			Trace	24
			Rho	0.6219
Rotation: (unrotated = principal)				
Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	7.60811	4.43217	0.317	0.317
Comp2	3.17594	1.60617	0.1323	0.4493
Comp3	1.56977	0.131288	0.0654	0.5147
Comp4	1.43848	0.305129	0.0599	0.5747
Comp5	1.13335	0.228239	0.0472	0.6219
Comp6	0.905116	0.0498277	0.0377	0.6596
Comp7	0.855288	0.0367038	0.0356	0.6953
Comp8	0.818584	0.0759283	0.0341	0.7294
Comp9	0.742656	0.0552109	0.0309	0.7603
Comp10	0.687445	0.0239234	0.0286	0.7889
Comp11	0.663522	0.0404704	0.0276	0.8166
Comp12	0.623052	0.109129	0.026	0.8426
Comp13	0.513923	0.0296165	0.0214	0.864
Comp14	0.484306	0.0577305	0.0202	0.8841
Comp15	0.426576	0.0502791	0.0178	0.9019
Comp16	0.376297	0.0164682	0.0157	0.9176
Comp17	0.359829	0.053165	0.015	0.9326
Comp18	0.306664	0.0164337	0.0128	0.9454
Comp19	0.29023	0.0398223	0.0121	0.9575
Comp20	0.250408	0.0250403	0.0104	0.9679
Comp21	0.225367	0.00392986	0.0094	0.9773
Comp22	0.221438	0.0527373	0.0092	0.9865
Comp23	0.1687	0.0137608	0.007	0.9935
Comp24	0.154939	.	0.0065	1

Appendix D

<Appendix D> Individual attributes of Short-term Conscription Officers

	Group	n	Perentage		Group	n	Perentage
Commission	ROTC	15	23.08	Major	Humanities	39	60
	OCS	5	7.69		Social Science	18	27.69
	Profesional Commission	44	67.69		Natural Science	2	3.08
	Other	1	1.54		Education	1	1.54
Rank	2nd LT	5	7.69	Work Experience	Other	5	7.69
	1st LT	16	92.31		Yes	44	67.69
Branch	Combat	59	79.79	Marital Status	No	21	32.31
	Technical	1	4.79		Yes	61	93.85
	Professional	1	6.38	Children	No	4	6.15
	Other	4	3.72		Yes	1	1.54
Months Left until Discharge	36-32	4	6.15	Gender	No	64	98.46
	26-22	5	7.69		Male	63	96.92
	21-17	9	13.85	Household Income	Female	2	3.08
	16-12	12	18.46		< 1,000,000	0	0
	11-7	7	10.77		1,000,000-3,000,000	6	9.23
	6-2	18	27.69		3,000,001-5,000,000	11	16.92
	<1	10	15.38		5,000,001-7,000,000	30	46.15
Age	20-25	16	24.62		7,000,001 <	18	27.69
	26-30	49	75.38				
Education	Korean Uni	29	44.62				
	Foreign Uni	31	47.69				
	Master's Student	3	4.62				
	Master's Graduate	2	3.08				

Appendix E

<Appendix E> Correlation Analysis of Employability and Individual components

	Perceived employability	Months left until Discharge	Branch	Age	Education Level	Academic Major	Work Experience	Household Income
Perceived employability	1.0000							
Months left until Discharge	-0.2664* 0.032	1.0000						
Branch	0.0995 0.4304	-0.0211 0.8675	1.0000					
Age	-0.2989* 0.0156	0.3227* 0.0088	-0.1076 0.3938	1.0000				
Education Level	0.0431 0.7332	0.1003 0.4266	-0.0475 0.7073	0.1304 0.3004	1.0000			
Academic Major	0.232 0.063	-0.1775 0.1571	0.1009 0.424	-0.3158* 0.0104	0.0213 0.8663	1.0000		
Work Experience	0.1594 0.2047	-0.0809 0.5218	-0.2105 0.0923	-0.0893 0.4793	-0.1445 0.2509	0.1134 0.3686	1	1
Household Income	0.0188 0.8816	-0.0808 0.5222	-0.0412 0.7445	-0.0886 0.483	0.2491* 0.0454	0.015 0.9055	-0.1688 0.179	

Appendix F

<Appendix F> PCA analysis of the factors of employability for officers

Principal components/correlation			Number of obs	65
			Number of comp.	6
			Trace	24
Rotation: (unrotated = principal)			Rho	0.6455
Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	5.69412	2.39017	0.2373	0.2373
Comp2	3.30395	1.41761	0.1377	0.3749
Comp3	1.88635	0.168169	0.0786	0.4535
Comp4	1.71818	0.0970601	0.0716	0.5251
Comp5	1.62112	0.353866	0.0675	0.5927
Comp6	1.26725	0.225664	0.0528	0.6455
Comp7	1.04159	0.0382058	0.0434	0.6889
Comp8	1.00338	0.121025	0.0418	0.7307
Comp9	0.882358	0.159288	0.0368	0.7674
Comp10	0.723069	0.0591029	0.0301	0.7976
Comp11	0.663967	0.0619543	0.0277	0.8252
Comp12	0.602012	0.0454767	0.0251	0.8503
Comp13	0.556536	0.0596882	0.0232	0.8735
Comp14	0.496847	0.0741682	0.0207	0.8942
Comp15	0.422679	0.0398925	0.0176	0.9118
Comp16	0.382787	0.0249727	0.0159	0.9278
Comp17	0.357814	0.0447209	0.0149	0.9427
Comp18	0.313093	0.0533616	0.013	0.9557
Comp19	0.259732	0.0397687	0.0108	0.9665
Comp20	0.219963	0.011534	0.0092	0.9757
Comp21	0.208429	0.0490159	0.0087	0.9844
Comp22	0.159413	0.0264295	0.0066	0.991
Comp23	0.132983	0.0506098	0.0055	0.9966
Comp24	0.0823737	.	0.0034	1

Appendix G

<Appendix G> Regression between the Discount Rates, Independent Variables and the Control Variables

		Weekly Discount Rate				Monthly Discount Rate				Yearly Discount Rate			
Independent Variables		β Coef	t	p	R-squared	β Coef	t	p	R-squared	β Coef	t	p	R-squared
Employability		24.64376	2.55	0.014*		2.415708	2.68	0.01**		6.428707	2.64	0.011*	
Months Left until Discharge		1.350353	0.3	0.764		0.1865015	0.45	0.658		0.3694361	0.33	0.745	
Demographic variables	Army Branch (combat as dummy)												
	Technical	48.07715	0.69	0.495		4.401287	0.67	0.504		11.82622	0.67	0.506	
	Professional	98.45506	1.53	0.133		12.25623	2.04	0.047		15.72738	0.97	0.338	
	Other	3.269953	0.08	0.933		0.0301898	0.01	0.993		0.4180374	0.04	0.966	
	Age	24.92176	1.17	0.247		2.494267	1.26	0.215		6.382837	1.19	0.24	
	Marital Status	-18.55504	-0.58	0.564		-2.024414	-0.68	0.501		-5.032382	-0.62	0.535	
	Level of Education (Uni in Korea as Dummy)												
	Overseas University Degree	23.18304	1.37	0.178		2.892291	1.82	0.075		6.591446	1.54	0.131	
	Current Master's Student	14.02265	0.4	0.689	0.207	2.507063	0.77	0.445	0.327	4.386096	0.5	0.62	0.219
	Master's Degree	3.468606	0.07	0.943		7.787281	1.73	0.09		5.000653	0.41	0.683	
Major variables	Major (Humanities as dummy)												
	Social Science	-28.99746	-1.58	0.12		-2.991347	-1.75	0.087		-6.945883	-1.5	0.14	
	Natural Science	20.83635	0.48	0.63		3.162901	0.79	0.435		5.967388	0.55	0.585	
	Education	-63.68692	-0.85	0.399		-5.551634	-0.79	0.432		-15.14767	-0.8	0.427	
	Other	-13.56395	-0.39	0.701		1.072836	0.33	0.745		-1.774623	-0.2	0.842	
	Previous work experience	24.90762	1.21	0.232		2.442856	1.27	0.21		5.950015	1.15	0.258	
	Monthly household income	-8.514907	-0.95	0.347		-0.9237271	-1.1	0.276		-2.403057	-1.06	0.294	
	Constant	-118.3384	-1.37	0.177		-11.21753	-1.39	0.171		-29.42105	-1.35	0.183	

Appendix H

<Appendix H-1> Discount Rates and Rank

Rank	Weekly DR, Mean	Std. Dev.	Monthly DR, Mean	Std. Dev.	Yearly DR, Mean	Std. Dev.
Private	6.240	5.467	6.238	5.111	7.800	8.380
PFC	23.494	70.017	17.021	48.556	25.542	109.351
Corporal	10.706	15.026	9.962	15.015	15.313	25.821
Sergeant	10.360	13.248	8.858	12.756	10.890	15.854
Total	16.540	50.239	12.959	35.392	19.114	78.076

<Table H-2> Correlation Analysis of Employability and its subcomponents

	Perceived employability	Personal Commitment to the Army	Perception of the Army Experience	Skills attained from the Army	Self Belief
Perceived employability	1.0000				
Personal Commitment to the Army	-0.0285 0.8219	1.0000			
Perception of the Army Experience	0.1972 0.1155	0.3784** 0.0019	1.0000		
Skills attained from the Army	0.3216** 0.009	0.008 0.9496	0.2273 0.0686	1.0000	
Self Belief	0.4928*** 0.0000	-0.0739 0.5586	0.0629 0.6184	0.3275** 0.0077	1.0000

<Table H-3> Discount Rates and Months until Discharge

	Weekly Discount Rate		Monthly Discount Rate		Yearly Discount Rate	
Months Left until Discharge	M	SD	M	SD	M	SD
36-32	1.584	2.173	0.920	1.034	0.765	0.884
26-22	2.419	4.087	1.472	1.701	1.014	1.116
21-17	4.341	10.991	0.844	0.646	0.700	0.453
16-12	2.208	2.720	0.980	0.773	0.933	1.006
11-7	70.498	160.332	9.143	15.378	18.892	40.754
6-2	1.509	1.821	1.267	1.046	0.763	0.558
<1	5.971	14.840	1.244	2.390	0.666	0.891

국문 초록

취업가능성이 대한민국 청년의 시간의 가치에 미치는 영향

취업가능성이 병사 및 단기복무장교의 복무 기간에 미치는 영향

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대한민국 청년들에겐 취업만큼 큰 골치덩어리가 없다. 취업시장에서 조금이라도 더 경쟁적이기 위해 피 튀기는 경쟁을 해가며 좋은 대학교를 가려고 하고, 심지어 대학교에서도 취업에 유리한 경험을 쌓기 위해 졸업을 유예해가며 취업 준비를 한다. 다른 나라에서도 비슷한 취업 경쟁이 있을 수 있지만, 한국이 그래도 가장 특별한 상황인 이유는 바로 징집이란 제도가 학업과 취업의 통로를 가로막고 있기 때문이다. 아직 북한과 대치 상황인 한국에선, 현역 대상인 남자들은 최소 18개월동안 병사 생활을 해야한다. 본인의 의사와는 무관하기 때문에, 우리나라 청년들은 군 생활을 “허비된 시간” 정도로 인식한다. 특히 취업과 전쟁을 치러야 할 나이에 선 청년들이 취업은 커녕 사회와 동떨어진 군사 교육을 받고, 특수 기술을 습득하니 군에 대한 부정적 인식은 더욱 팽배해져 갔다. 이러한 트렌드에 반응하여 최근 대한민국 육군은 ‘군생활은 시간 낭비다’ 라는 이미지로부터 탈피하기 위해 장병 고용성 제고, 즉 스펙 쌓기에 도움을 줄 수 있는 정책들을 시행하며 이미지 탈바꿈을 시도하고 있다. 이와 연계하여 본 논문은 과연 고용성이 시간의 가치 판단에 유의미한 영향을 주는지, 고용성에 영향을 주는 하위 요인들이 무엇이며, 특히 육군복무와 관련된 요인들 중 어떤 요인들이 고용성에 유의미한 영향을 미치는지, 그리고 마지막으로 취업전선에 서서히 다가면서 군인의 시간의 가치는 어떻게 상이한지를 알아보려고 한다.

본 논문에선 고용성의 6개의 구성요소들을 문헌조사를 통해 살펴보았다. 이는 ‘육군에 대한 시각’, ‘육군에서 터득한 기량’, ‘자기 신념’, ‘야망’ 그리고 ‘육군에 대한 헌신’ 등 있었다. 구성요소들과 취업가능성이 어떠한 관계를 가지고 있는지 알아보기 위해 회귀분석과 피어슨 상관계수를 사용했고 시간의 가치를 측정은 수용가능금액 (Willingness to Accept) 과 주관적 할인율(Subjective Discount Rate)에 대한 설문을 사용하였다. 수용가능금액 설문에선 현 보직, 계급, 근무부대 등 모든 것이 현재와 변함이 없는 것을 가정하에 6개월 연장복무를 독려하려면 현재 월급보다 추가적으로 얼마를 더 지급해야 하는지를 질문했고 주관적 할인률은 사전에 지급 받기로 한 돈을 1주, 3개월, 1년 등 연기하여 입금 된다면, 보상으로 얼마를 더 받고 싶은지 질문했다. 마지막으로 피어슨 상관계수와 다중 회귀분석을 통해 취업가능성과 계급이 시간의 가치 측정 요소들과 어떤 관계가 있는지 살펴보았다.

본 연구는 단기복무장교와 병사들 위주로 실시하였으며 설문지는 육군본부로부터 적절성 검토 및 보안 검토 승인을 받은 후 4월 25부터 5월 5일까지 자료 수집이 실시되었다. 회수 받은 설문지 중 253부만 본 연구에 사용 가능했다. 이 중 188부는 병사, 65부는 단기복무 장교들로부터 회수한 설문지였다.

연구 결과를 요약하자면 첫째, 병사들의 평균 자체 평가 고용성 점수는 3.26이었으며, 단기복무 장교들은 3.4였다. 둘째, 병사들의 고용성에 통계적 유의미한 영향을 미친 요인은 ‘취업시장에 대한 의견’, ‘육군에 대한 헌신’, 야망’ 이었다. 둘째, 고용성과 계급은 병사들의 수용가능 금액에 유의미한 영향을 미쳤다. 고용성과 계급을 통제변수들과 함께 다중 회귀 분석을 돌리니, 두 변수 다 통계적으로 유의미한 양의 관계를 보였다. 즉, 본인의 고용성을 낙관적으로 평가하거나 계급이 높아지면, 병사의 수용가능금액 또한 인상하였다.

단기복무 장교들은 병사들과 사뭇 다른 결과를 보였다. 단기복무 장교들의 고용성에 유의미한 영향을 미친 요인은 ‘개인 신념’ 뿐이었다. 즉

3년 동안 군 복무를 하는 장교들이지만, 군생활과 관련된 경험들이나 기량들이 본인의 고용성에 큰 영향을 미치지 않는다는 결과가 나왔다. 둘째, 고용성과 수용가능금액과 유의미한 관계는 없었다. 다만, 고용성과 Subjective Discount Rate간 유의미한 양의 관계가 나타나며 본인의 고용성이 높다고 판단하는 장교들은 본인의 현재 시간의 가치가 미래 시간보다 더욱 높다고 결론이 나왔다. 마지막으로 전역까지 남은 기간과 시간의 가치 간의 통계적 유의미한 관계는 나타나지 않았다.

즉 본 연구 결과를 바탕으로 후속 연구 및 정책 관련 제언은 다음과 같다. 현재 육군이 시행하고 있는 ‘청년 드림, 육군 드림’은 육군이 도모하는 이미지 탈바꿈을 이루어 낼 수 있는 정책이라고 평가한다. 장병들에게 고용성은 민감한 이슈인 만큼 시간의 가치에도 영향을 주었고, 만약 육군이 군생활 중 장병들의 고용성을 제고할 수 있는 기회를 만들어 준다면, ‘군생활은 시간 낭비’라는 인식을 변화 시킬 수 있을 것이다. 다만, 장병들뿐만 아닌 단기복무 장교들에게도 같은 혜택과 관심을 주어야 한다. 병사 복무기간이 추가적으로 단축되며 단기복무 장교 전형에 지원자율은 급격하게 줄고 있다. 하지만 단기복무를 독려할 수 있는 추가 혜택은 없는 상황에서 병사들 여건만 지속적으로 개선이 되고 있어 단기복무장교 전형에 대한 미래 전망은 비관적이다. 또한, 본 연구에 따르면 단기복무 장교들은 군생활을 36개월 하지만 군생활이 본인의 고용가능성에 미치는 영향은 통계적으로 무의미하다고 답했다. 즉, 군이 단기복무 장교에 전형에 대한 매력을 어필하며 지원자 수를 늘리기 위해선 단기복무 장교들에게도 고용성을 강화시킬 수 있는 정책을 마련해야 한다.

주요어 : 취업가능성, 시간의 가치, 징병제, 육군
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